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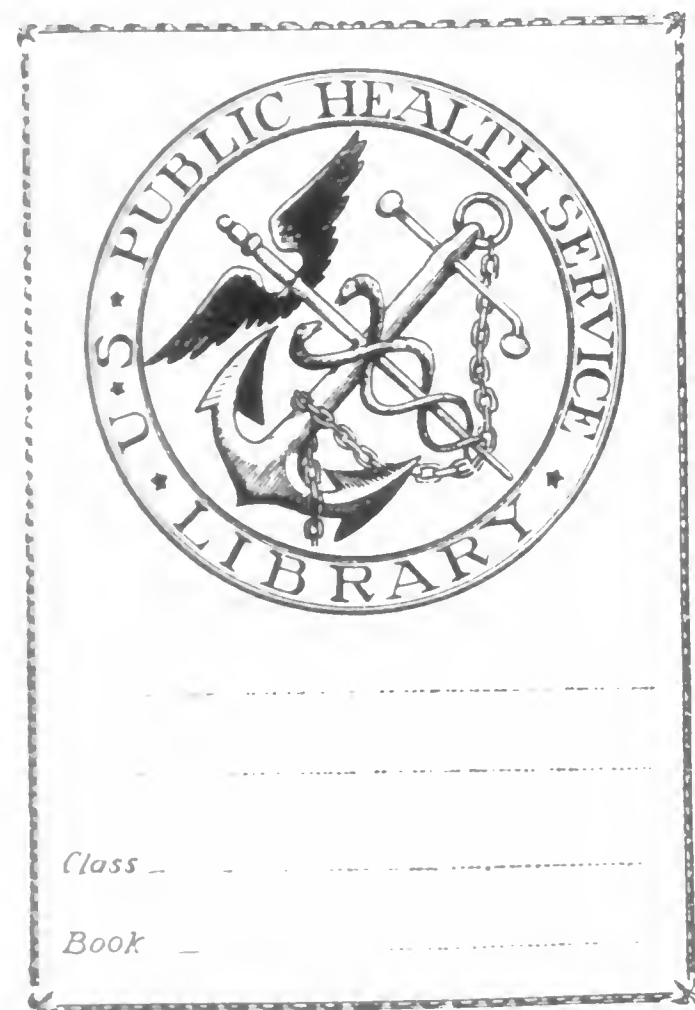
TWENTY-NINTH
ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH
OF FLORIDA

1917

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STATE BOARD OF HEALTH OF FLORIDA

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OF THE

State Board of Health
of Florida
1917

APPROVED BY THE BOARD IN ANNUAL SESSION
APRIL 18, 1918

JACKSONVILLE, FLORIDA

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FLORIDA STATE BOARD OF HEALTH

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OFFICE OF THE SECRETARY AND MAIN LABORATORY

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LETTER OF TRANSMITTAL

TAMPA, FLA., August 17, 1918.

HON. SIDNEY J. CATTS,
Governor of the State of Florida,
Tallahassee, Fla.

MY DEAR GOVERNOR:

I herewith hand you the twenty-ninth annual report of the State Board of Health, in conformity with the statute of Florida which requires that the President of the State Board of Health shall each year make report of expenditures of the Board together with any special observations and recommendations of facts that he may deem necessary that would be conducive to the health and sanitary condition of the State, and such annual statements shall finally be submitted by the Governor to the State Legislature, when in regular session convened.

For the first time since the establishment of the State Board of Health a change has been made in the executive office, Dr. W. H. Cox being selected by the Board to take the position held by Dr. J. Y. Porter.

As a result of a misunderstanding as to the amount that would be provided for the Board during the previous year, it was found, at the first meeting of the State Board of Health, that the finances were in bad condition, that bills of long standing had accumulated against the Board, and its credit was impaired. Realizing this the Board immediately took steps to retrench and run the State Board of Health on that economic basis that would bring credit to your administration, at the same time not weakening or impairing its efficiency in the conservation of health, and from a deficit the Board ended its year with a balance in the neighborhood of \$40,000.00.

The Board feels that at all times there should be a sufficient amount to its credit to enable it to combat any epi-

demic that is more liable in these extraordinary times than others to become prevalent, but we are thankful to say that, due to the great efficiency of our force, no serious epidemics of any nature whatever visited our State during the first year of our administration.

To plan, intelligently, for the future, the State Board of Health must be assured of certain measures. Of first importance every officer and employe of the State Board of Health should be appointed and chosen on a basis of merit and the tenure of office determined by faithful and conscientious service, and to the end that individuals connected with the State Board of Health may have protection, thus eliminating them from meddling in politics for the purpose of making secure their position. I therefore urge that you request the Legislature to pass a law placing the officials of the State Board of Health upon a civil service basis. I would also recommend that the membership of the State Board of Health be increased from three to five, two of which members shall be practicing physicians of the State, that the two additional said members be appointed for the term of four years commencing from June 1, 1919, thus assuring no entire change of the Board at any one time.

I would further recommend that a law be passed granting the officials of the State Board of Health the right and privilege to call for an interpretation of the law from any County Solicitor or State's Attorney free of expense to the State. I would further recommend that all prisoners suffering with communicable diseases should be isolated and be given quarters apart from others, and that each and all of them should be compelled to submit to examination by any physician connected with the State Board of Health that the State Health Officer might designate.

The salary granted the State Health Officer by law was fixed by statute in 1889, although the scope of activity of the State Health Officer has been greatly widened and more constant duties have been placed upon him by each and every Legislature, no change having been made in the salary. I would recommend that the State Board of Health, which has the

right to designate the salaries of all other officials connected with the State Board of Health, also have the right to fix the salary of the State Health Officer so that he should be paid a salary commensurate with his responsibilities.

In submitting these recommendations I have held in mind the thought that the next session of the Legislature will not meet previous to our next annual report, at which time I will be pleased to take up with Your Excellency and the Legislature the enactment of such laws as the Board may deem necessary in order that the high standard of efficiency of the State Board of Health may be maintained.

Dr. Cox and his able assistants herewith review, at length, the work that has been accomplished by the Board, all of which is respectfully submitted:

Very respectfully,

CHARLES T. FRECKER,
President State Board of Health.

REPORT OF THE STATE HEALTH OFFICER

JACKSONVILLE, FLA., February 12th, 1918.

HON. C. T. FRECKER,
President, Florida State Board of Health,
Tampa, Fla.

DEAR SIR:

I desire, as is required by the Statutes, to submit to you a report of the various activities of the Executive Office, together with those of the different Bureaus, District Health Officers, and other attaches of the State Board of Health, for the past year, and most especially for the last six months.

While there is no one more familiar than yourself with the organization of the Board of Health it is deemed advisable for the information of the public to state that the distinguished gentlemen, appointed by Governor Sydney J. Catts, to comprise the Florida State Board of Health, were Honorable C. T. Frecker, Honorable Ed. M. Earnest, and Honorable J. E. Graves. These members met in Tallahassee on June 5th, 1917, and elected Hon. C. T. Frecker, President of the Board, and Dr. W. H. Cox, State Health Officer. Dr. Hiram Byrd, who was named as Scientific Secretary, resigned after a few months to take the position as District Health Officer for that section in which his home is located, and Dr. C. T. Young, who was District Health Officer for that territory, was made Assistant to Dr. Cox. Mr. Roy Campbell was appointed Chief Clerk. This completed the personnel necessary for the conduct of the affairs of the Executive Office.

The following were made Directors of the different bureaus or departments:

Dr. F. L. Watkins, Statistician, Bureau of Vital Statistics.
Mr. George W. Simons, Jr., Chief Engineer, Bureau of Engineering.

Dr. B. L. Arms, Director Bureau of Laboratories.

Dr. E. Van Hood, Surgeon in charge Hospital for Crippled Children.

These gentlemen have all rendered a loyal and painstaking

service in their different departments, and each is presenting, in another part of this communication, a detailed report of the various activities of his bureau, for the year which has just passed.

It has been the custom, since this organization, for the Board to maintain a mobile force or traveling corps of health officers, whose special duty it is to visit, at regular intervals, the different sections comprising their districts, including all populated centers, whether urban or suburban, and make a careful inspection of local conditions; give advice for the correction of any situation found to be a menace to health, to make surveys of municipalities, for the purpose of ascertaining the existence of local organizations, engaged in health work, and to co-operate with them in every way, in their efforts for the public welfare; to make surveys of municipalities for the purpose of ascertaining the methods of sewage disposal and to supply them with detailed and definite information, for the correction of any dangerous or insanitary methods which were in use; to ascertain the condition of the water supply and the protection of the same; to inspect all places dealing in food supplies, especially those which were displayed for sale, that are consumed in their raw state or which are eaten without further preparation; to investigate alleged nuisances and to see that proper measures were instituted for their correction. They are also charged with the responsibility of investigating epidemics or cases of communicable illness reported to this office, instituting the proper measures for the control and eradication of these diseases together with the instruction of the people in the precautions necessary for the prevention of a spread of the infection. Numerous complaints against alleged insanitary matters are constantly referred to them for investigation, as well as the enforcement of such measures as are deemed necessary for the protection of the public health.

Recently a practical system has been worked out for the medical inspection of children in public schools and the prosecution of this work has become one of their duties. In addition these officials are constantly conducting, through per-

sonal contact and advice, talks to schools, public lectures, distribution of printed pamphlets an educational campaign for the improvement of health conditions and the prevention of disease.

The following active practicing physicians were selected because of their exceptional qualifications and peculiar fitness for health work as District Health Officers. The counties comprising their districts are listed after names:

DR. HIRAM BYRD

Seminole,
Orange,
Osceola,
Brevard,
St. Lucie,
Palm Beach,
Dade,
Broward,
Okeechobee.

DR. V. H. GWINN

Hamilton,
Columbia,
Baker,
Suwannee,
Bradford,
Nassau.

DR. F. L. TATOM

Escambia,
Walton,
Washington,
Okaloosa,
Santa Rosa,
Holmes,
Bay,

DR. J. E. TAYLOR

Jackson,
Gadsden,
Franklin,
Leon,
Calhoun,
Liberty,
Wakulla,
Jefferson,
Madison.

DR. GEO. A. DAME

Alachua,
Marion,
Lafayette,
Levy,
Citrus,
Taylor.

DR. H. O. SNOW

Pinellas,
Pasco,
Sumter,
Hernando,
Hillsborough,
Lake.

DR. A. W. UNDERWOOD

Clay,
Putnam,
S. Johns,
Volusia,
Flagler.

DR. A. C. HAMBLIN

Manatee,
DeSoto,
Polk,
Lee.

DR. W. R. WARREN

Monroe.

At the beginning of their official duties they were all called into Jacksonville for special instruction in epidemiological work. Typhoid was the disease selected for study because of the latitude of the territory as well as the range of sanitation that would necessarily have to be gone over during the investigation. A nearby unincorporated suburb afforded the field desired. Typhoid had prevailed there for several months. Conditions were present on almost every side which would tend to further the spread of the infection, and it was thought that a careful study of the situation as it existed there would be of great interest and assistance to the men in their future efforts about the State.

The district had been mapped out previously by Mr. Simons and all streets and houses properly located. The men were assigned in groups to the different sections. The work was to be intensive, accordingly records were made of every house, the owner's name, address, construction of house, number of stories, number of rooms, number of occupants and their sex, screening of house, size of lot, water supply, sewage disposal, if privy, kind and condition of same, distance from water supply, kind of soil, slope of same, garbage disposal, presence of cow lot, stable or chicken yard, care of manure, etc. In this way a definite idea was acquired of the sanitation of the different homes and their environs.

Another card blank or census card was filled out for each inmate which supplied definite information of a personal nature as well as the number and kind of diseases which had affected the individual. Whenever a record was obtained of

a case of typhoid, a special epidemiological blank was used which covered in detail all of the ordinary sources or means of transmission of the fever. The case was marked upon the spot map. Every one living in the section was urged, where they could be seen personally, to take the typhoid vaccine and invitations were sent to all who could not be seen to accept and avail themselves of the same privilege. A dispensary was established in a drug store at a convenient location. A dose of vaccine was administered at ten day intervals and a large number of those living in that neighborhood availed themselves of the opportunity to secure the protection afforded in this way against the fever.

Every condition of faulty sanitation which was noted during the investigation was called to the attention of those occupying the premises and careful and detailed instructions were given for the correction of the same. It is thought that in this way much good was accomplished. The sewage disposal methods in use by the section are notoriously bad, the construction of the privies faulty—practically all of them are open and unscreened and are only cleaned, in many instances, when they become so objectionably odorous as to seriously interfere with the physical comfort and well being of those living about.

At odd times, and especially during the evenings, the men were given talks on communicable diseases, their method of transmission together with round table discussion of any sanitary problem which appeared to be of interest to those gathered about. Sewage disposal, water supplies, their method of purification together with the proper plan for the collection and disposal of garbage were discussed during an illustrated lecture by Mr. Simons. On another evening Dr. Watkins explained the importance of the collection of vital records, the details of the system employed by him in gathering together the memoranda so essential to the proper institution of health work as well as the indication of preventive measures against prevalent communicable disease.

The brief opportunity given the Health Officers to familiarize themselves with the demands of the work during the in-

vestigation and the conferences, was well improved, and the District Health Officers all expressed their appreciation before leaving to take up their duties in their different sections.

EDUCATIONAL WORK

An energetic effort is being made and maintained to advise and instruct the people of the nature of communicable disease, the way in which it is transmitted and of those conditions of an insanitary nature which are known to influence health welfare adversely. The methods employed in the dissemination of this information are the weekly press service, the monthly health publication, the "Health Notes," with the assistance of all the attaches of the Board in their contact with the public, through talks to schools, illustrated lectures, and advice to City Councils and the citizens of the different sections upon any subject to which the attention of the Board has been called for information and suggestions for correction. Special attention is being paid to municipal sanitation, the building up in the different sections of a settlement for community health organization work, the correction of the insanitary toilet evil and the substitution therefor of the permanent cement L. R. S. privy, the passage and enforcement of a number of ordinances essential to the proper regulation of sanitary matters and the control of conditions which favor the spread of disease. Municipal officials are being urged to co-operate with the Board and take a more active interest in the prosecution of all measures which tend to promote the health welfare of the State.

PREVALENCE OF DISEASE

It is a pleasure to be able to report that during the past year the State has escaped the visitation of an epidemic of a more serious or major quarantinable type of communicable disease. The various efforts of the Board directed more especially along educational lines for the prevention of sickness are bearing fruit, and it is to be expected that the more extensive the knowledge becomes of the cause of disease, the

manner in which it is transmitted, and the measures necessary to prevent its spread, the less will be the occurrence in epidemic form of those infections or diseases which can be controlled by simple means of proven merit.

The recent inauguration of a plan requiring the reporting of communicable disease is going to prove an invaluable aid, the more thorough and the more complete the cases reported, in the control of the communicable disorders throughout the State. As has been repeatedly remarked, "No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring." With this information which is being gathered constantly, an accurate index is at hand of health conditions and by studying the tabulations of the reported diseases one can see at once the kind of health work demanded and the particular field in which the efforts should be made.

HOOKWORM DISEASE

The diagnosis of hookworm by the Laboratory from specimens submitted by the physicians of the State has continued uninterruptedly throughout the year. This work has been given a considerable impetus by the District Health Officers and the public school teachers in their routine examination of school children. In every instance in which a diagnosis has been either made or suspected, the individual has been urgently referred to the family physician for confirmation of diagnosis and treatment.

Pains have been taken to discuss at every opportunity the nature of the malady, the mode of infection and the essentials necessary for prevention. Emphasis has been laid upon the futility of an attempt to cure without a simultaneous correction of faulty local sanitation. Children and parents have been warned of the danger of going barefooted or of handling soil that had been polluted with intestinal discharges. A persistent effort is being made to sanitize the rural home, to secure among other things, the erection of a sanitary privy, as a basic necessity for the prevention, eradication and control of not only hookworm, but other sewerage born infections.

A very generous supply of thymol mixed with sugar of milk, dispensed in capsules of a convenient dosage was found on hand, and which had been purchased by the retiring Board. District Health Officers were advised through a circular letter that upon request a sufficient quantity of capsules would be sent them for use among the resident population of the State, especially those who would find it a hardship to pay for the treatment.

The Laboratory at Jacksonville, through its Director, Dr. B. L. Arms, has supplied every individual request, with the treatment accompanied with full suggestions as to dosage; advising in each instance, however, that the remedy be taken only under the advice and supervision of the family medical man, to whom it is the custom to send the treatment.

The intensive sanitary campaign which is being conducted and which has for its primary object the correction of open, unscreened, temporary methods of local sewerage disposal, will do more than any one item in the sanitary program for the control of hookworm. It is an established fact that it is absolutely useless to treat barefooted children, coming from homes not equipped with proper sanitary privies, the relief or benefits secured, is but of short duration, as the child soon contracts new attacks of grounditch which means more hookworms and a return of the old symptoms.

SCHOOL INSPECTION

While the responsibility for school inspection under the statutes is placed with the County Physicians, and an appointee of the County Commissioners, a local physician for every twenty-five hundred children to be examined, the State Board of Health is only charged with the obligation to pay the necessary amounts to carry out the provisions of the law together with the "supervision of all matters pertaining to the inspection, such as the formulation and adoption of such rules and regulations as are found necessary for the successful conduct of the work."

To examine the school children after the manner contem-

plated in the law it was found that an inspecting force of about ninety-five and an expenditure of a sum around eighty-five thousand dollars would be required for the two hundred forty thousand school children attending the public schools of the State. The undertaking was far beyond the available resources of the Board which could have been devoted to the work. After discussing the subject thoroughly it was decided to carry out, as far as they were able, the expressed wishes of the people through the acts of the Legislature. The plan which was finally evolved took into account the limited number of District Health Officers, the large territory to be covered together with the time which could be spared from other duties. With the co-operation of the school authorities and the teacher especially to act as assistant in each room examined in the listing of defects found, making such part of the examination as she could familiarize herself with, carrying the information into the homes with advice and insistence that the child affected be carried to the family medical man for diagnosis and treatment in order that defects might not become permanent obstacles to the physical and mental growth, it was thought that something could be accomplished. Briefly the plan contemplates:

1. The detection of such conditions as defective vision, impaired hearing, sore eyes, enlarged tonsils, adenoids, decayed teeth, hookworm, etc.
2. The inauguration of a follow-up service by the teacher among the parents of those affected in order to secure the correction of the defective conditions observed at the earliest possible moment.
3. The exclusion from school of those suffering from communicable conditions as a means of preventing the spread of these troubles and the keeping up of a high average attendance.
4. In addition to the regular study of hygiene and sanitation among the different grades, talks from the District Health Officers to the children on the necessity for personal cleanliness, such as the thorough washing of hands and the cleaning of the nails before eating; the use of individual drinking cups, towels, clean basins of running water, etc.
5. An inspection of the school building and its environs for the purpose of securing better hygienic conditions, such as proper ventilation, good light, a safe water, and a sanitary method of sewage disposal.

Efforts are to be made to detect and remove, as far as may be possible those conditions in a child's life which would tend to retard the growth of a strong mind in a strong body and which would prevent their acquiring to the fullest extent the

education which is being offered in the public school system of the State.

Where counties employ school nurses to conduct the examination and the follow-up work independent of the efforts of the Board, some have adopted systems more elaborate than that offered by the Board. The system is a practicable one, however, and calls for an investigation for all the common defects which have been found to affect child life in Florida. It is being given a thorough try-out and in the hands of some of the Health Officers, is accomplishing all that was hoped for it.

TRACHOMA

The attention of the Board was directed to the prevalence of trachoma in Seminole County by Dr. Neal of Sanford in a conversation with the District Health Officer for that section, who transmitted the request for assistance to the Executive Office. Finding that the condition existed in several sections of the State and that considerable confusion appeared to exist among the medical men regarding the diagnosis of the trouble, the State Health Officer wired the Surgeon-General of the United States Public Health Service for the services of one of his experts to make an examination of the children in some sections of the State, determine the nature of the disease and advise the Board relative to the inauguration of a campaign for the control of the infection. He detailed Surgeon John McMullen, one of the leading authorities in the country and who at the time was located at Louisville, Ky., to make the investigation.

The State Health Officer desires to express his appreciation to the Surgeon-General and to Dr. McMullen for his thorough and painstaking efforts in the different counties investigated, for the many demonstrations to the profession of the diagnostic features of trachoma and the operative, remedial and preventive measures necessary for the control of the disease. The educative campaign instituted was well received and many expressions of thanks for the services rendered by this distin-

guished expert to the people have come to this office from time to time.

It affords me much pleasure to present Dr. McMullen's report of his investigation of trachoma in Florida:

LETTER OF DR. JOHN McMULLEN

Copy transmitting report of visit to Florida to investigate the trachoma situation in that State:

Lexington, Ky., Oct. 29, 1917.

The Surgeon-General,
U. S. Public Health Service,
Washington, D. C.

Sir: Pursuant to bureau letter of October 3d and telegram of October 8th, I left Lexington on the morning of October 9th for Jacksonville, Florida, and arrived there the following morning.

I immediately called on Dr. W. H. Cox, the State Health Officer, and conferred with him relative to the trachoma situation in the State of Florida. At the request of Dr. Cox, I proceeded, that night, to Sanford, Florida, in company with Dr. V. H. Gwinn of the State Board of Health. On October 11th I examined about one hundred and thirty-seven people, most of whom were school children, and found forty-four cases of positive trachoma. The local doctors had examined all of the school children in Sanford, or a total of about eight hundred and the one hundred and thirty-seven which were presented to me in the office of one of the local doctors had been selected from the eight hundred as either trachoma or suspicious of this disease. This would, therefore, represent about five and one-half per cent. of infection. I also examined a rural school at Oveida, of forty-six pupils, and found eight cases of trachoma among them. I returned to Jacksonville in accordance with arrangements with the State Health Officer the same evening.

On October 12th it had been arranged that all of the eye specialists of Jacksonville have in their offices in the morning all cases which, in their opinion, were trachoma or sufficiently resembled this disease to be considered suspicious. I visited the offices of these physicians, and found among those present about fifteen cases of positive trachoma. In each instance the diagnosis, prognosis, and treatment with special reference to the differential diagnosis of trachoma.

On the morning of October 13th I gave a clinic at the State Board of Health building and showed a number of cases of trachoma which had been found the day previous. There were about twenty physicians present at this clinic. From the State Board of Health building we proceeded to St. Luke's Hospital, Jacksonville, and operated on one case of trachoma for the purpose of demonstrating to the physicians present the Service method of treating this disease.

On the afternoon of October 14th I proceeded to Sanford, Florida, in company with Dr. Cox, the State Health Officer. The next three days, October 15th, 16th and 17th, were spent in examining cases and operating on trachoma patient. The Sanford doctors co-operated splendidly with the State Health authorities and were intensely interested in this public health work. Since no hospital was available in Sanford they arranged to use the entire floor of the largest hotel building in the city, probably about ninety rooms being available for clinical purposes. The total num-

ber examined during these three days was five hundred and twenty-seven, which represented a total of twenty-three hundred which had been examined by the local physicians in advance of my visit, and one hundred and sixty-five cases of trachoma were found. Of these one hundred and fifty-eight were white and seven were colored, and the majority of the cases were school children of Sanford and vicinity, including an orphan asylum in the neighborhood.

During the three-day clinic one hundred and twenty-five operations were performed, all of which were done under general anesthesia, and treatment for various eye conditions was recommended in two hundred cases. A number of eye specialists were present from the neighboring towns, and the clinic was attended by a total of about twenty doctors. About twenty-five of the operations were performed by the local doctors. The day following my departure the local physicians performed thirty-five additional operations, and my instruments were left with them for this purpose. The State Health Officer and assistant left Sanford two days in advance of my departure and examined the schools at Lakeland, Plant City, Tampa and Ybor City, and took the names of such pupils as were thought to be either suffering from trachoma, or the conditions suspicious of this disease. The State Board Representatives examined two schools at Plant City with a total population of three hundred and eighty. Of these he diagnosed sixteen as trachoma, and five as suspicious, and twenty-three as follicular conjunctivitis. I examined about thirty children at Plant City, and found twenty-four cases of trachoma out of the three hundred and eighty that had been previously examined by the representative of the State Board of Health.

I was met at Lakeland by Dr. Cox, who accompanied me to Plant City and Tampa. The representative of the State Board examined five hundred and twelve children in Tampa schools and found forty-eight cases of trachoma. I subsequently examined a number of these children and found them suffering with this disease.

Owing to the lack of time it was not possible to make examinations further south in the State, but I was informed by the representative of the State Board of Health from that district that much trachoma existed in that section. On the afternoon of October 19th I operated on three positive cases of trachoma at the hospital in Tampa in the presence of ten of the local physicians. I was informed that it is the intention to examine all of the schools of Jacksonville and a vigorous effort made to eliminate trachoma in them.

It is evident that trachoma is unduly prevalent in the State of Florida, and the State Board of Health and the local physicians are alive to the situation and desire to take immediate action to control the further spread of this disease and also to cure the existing cases.

At a conference in Tampa between the President of the State Board of Health and Dr. Cox, the State Health Officer, I was informed that the State owned a health train which had been previously used for demonstration purposes for tuberculosis, etc., and it was suggested that this train, consisting of three cars, formerly Pullmans, be equipped as a trachoma hospital and used throughout the State for the eradication and prevention of the further spread of this disease.

These officers further informed me that it was the intention to visit the Surgeon General, and urge that this be done. In this connection I desire to acknowledge the hearty and earnest co-operation of the State Board of Health, and also the local physicians of the State where I visited,

and this was especially true of Sanford. Special acknowledgment is also made of the many courtesies extended me by Dr. W. H. Cox, the State Health Officer.

Respectfully,

JOHN McMULLEN,
Surgeon.

In the plan first formulated for the relief of the trochomatous children it was proposed to convert the Exhibit Train into a hospital and offer it to the government to be used in the State so that expert attention and operative service would be brought to the door of all places located upon the different railroads. The District Health Officers in the meanwhile were to examine the schools and find out those whose eyes were infected and file records of the cases with the office so that they could be notified to be on hand when the train came to the town. The government, because of multitudinous and more pressing duties, was unable to accept the offer of the train. It is hoped that at some later and more peaceable date it will be possible for them to take up and energetically prosecute the campaign for the control of trachoma in Florida in conjunction with the State Board of Health.

In the absence of being able to offer those affected any relief the Executive Office advised that only children suffering from the disease in the acute stage or whose eyes were mattering or discharging be excluded from school. Those in the chronic stage whose eyes were not mattering were allowed to complete the present term of school. A supply of reprints of one of Dr. McMullen's articles on trachoma which gave very thorough information as to how to avoid the disease were secured and given a wide distribution. In addition the District Health Officers visited schools and made talks on trachoma, laying stress on the essentials necessary for the prevention of that disease.

RABIES

It is quite obvious from a study of the records of the last few years that the rabies problem is steadily becoming an increasingly serious one. In 1916 there were one hundred and twenty-two examinations made in the laboratory to determine

whether animals were rabid. Of these thirty-seven were found positive. Fifty-seven persons were bitten by rabid animals or supposedly rabid animals and received the treatment through the Executive Office of the State Board of Health.

Last year, 1917, the laboratories examined one hundred and forty-four specimens of supposedly rabid animals, seventy-six were positive, sixty-two negative, and six were doubtful or decomposed. Treatment was sent out to one hundred and thirty-four, all of whom were reported as indigent except about twenty-seven.

The distributions of the treatment by months is interesting:

January	9	May	13	September	17
February	15	June	5	October	6
March	29	July	7	November	2
April	2	August	12	December	10

By Counties:

Alachua	2	Hillsborough	3	Osceola	0
Bay	0	Holmes	0	Okeechobee	0
Bradford	0	Hernando	1	Palm Beach	0
Brevard	1	Jackson	3	Pasco	0
Broward	0	Jefferson	5	Pinellas	0
Baker	0	Lafayette	0	Polk	0
Calhoun	0	Lake	0	Putnam	8
Citrus	0	Lee	0	St. Johns	0
Clay	1	Leon	5	St. Lucie	1
Columbia	0	Levy	0	Santa Rosa	0
Dade	3	Liberty	0	Seminole	0
DeSoto	1	Madison	2	Sumter	0
Duval	74	Monroe	0	Suwannee	10
Escambia	2	Manatee	0	Taylor	0
Franklin	0	Marion	0	Volusia	0
Flagler	0	Nassau	0	Wakulla	0
Gadsden	10	Okaloosa	0	Walton	2
Hamilton	1	Orange	0	Washington	0

In many of these instances individuals have been compelled to take the treatment because of the too frequent habit of killing the dog and never thinking to have its brain examined until the carcass had become too badly decomposed.

It is apparent from the above table that the disorder is fairly well distributed over the State.

It might also be well to mention the fact that rabies has been diagnosed in animals that had not bitten any one, in some of the counties, which appear clear in the above tabula-

tion. No account has been taken of the number of domestic animals which have been destroyed by their owners, following the bite of a rabid dog, and before the disease could develop, or that have died from the effects of the disease. Reports of epidemics which have occurred in the different counties are too fragmentary for one to undertake a discussion of the economic cost of this disorder to the stockmen. The focus about Jacksonville from official records is evidently an old one. New foci have recently appeared in the neighboring counties of Clay and Putnam, which can safely be assumed to be an extension from Duval County infection.

Of all preventable diseases there is not one more susceptible to a speedy and effective control and eradication than is rabies. With the inauguration and continued energetic prosecution of two very simple and widely enforced measures, rabies, the most dreaded, the most terrible of all diseases to which human flesh is heir, would in a few years become a forgotten horror—a mere matter of passing interest.

In view of the ease with which this elimination could be effected, the continued prevalence of rabies with the resultant waste of domestic animals, the prolonged menace to the life and health of our people, the needless expense of treatment, the unnecessary mental anxiety of those who through no fault of their own become temporary victims of rabid canines, constitutes a crime against the integrity of the State, in defence of which not even the suggestion of an excuse can be offered.

In our too sentimental attachment to the "poor man's friend," we have thoughtlessly unleashed a source of potential danger to the public at large.

The first measure for the control of rabies is the immediate and continued destruction of all ownerless dogs. In this class is included mongrels, curs and hounds, and all other dogs not provided with the proper license tag, collar and protective muzzle. It should be made the duty of all county and municipal police officers to be constantly on the alert and kill every dog not supplied with an approved and effectively applied muzzle.

The second procedure is that of muzzling. This measure

should be constantly enforced and only abandoned when a sufficient time has elapsed to warrant a feeling that the disease had been eradicated.

From the tabulation showing the prevalence of rabies in this State, in the different months, it will be seen that this malady prevails in our State through the entire year, and that it is a mistake to only apply muzzles through any particular period. In Florida the muzzle should be worn the year round, and in those towns where municipal ordinances are drafted covering this particular phase of the control of the disease, care should be exercised in specifying a type of muzzle that is constructed of metal and one which can be fitted in such a way that biting will be impossible.

SMALLPOX

Smallpox has shown a steady decrease in the last several years, as is seen in the following tabulation:

Years	1912	1913	1914	1915	1916	1917
Reported cases.	1713	1166	582	236	90	68

The distribution of the cases by counties is as follows:

Bradford	8	Hillsborough	8
Duval	26	Jackson	1
Escambia	16	Lee	1
Hamilton	2	Orange	3
Palm Beach	1	Pasco	1

The steadily diminishing prevalence of this eruptive malady can only be explained by the increased number of our population who have been immunized through vaccination. Through the recurrence about the State of occasional sporadic cases of smallpox and a consequent local fright resulting among those who inhabit the section; the insistence of some transportation lines, as the Florida East Coast Railway and Pullman Company, that their employes be vaccinated; the requirements of certain school boards, as that of Jacksonville, Florida, that the children be vaccinated before being allowed to enter the public schools, a considerable number of people, have, during the past year, been brought under the protective influence of vaccination. It has also been apparent in the

correspondence of the Executive Office, that the old time hostile attitude of the public at large towards the procedure is becoming less manifest, and that there is instead being built up a strong growing sentiment among the people to rightly regard it as the only real and dependable method for the prevention, as well as the control of smallpox.

Last year, 1916, 6,138 vaccine points were distributed.

This year, 1917, 15,555 vaccine points were distributed.

Quite recently the United States Public Health Service have promulgated a new set of regulations covering the preparation of vaccine testing its purity and the marketing of the product, only in sealed glass tubes, the use of metal scarifier, etc. All this has had the effect of producing a feeling of increased safety toward the measure and the establishment of a confidence that, if reasonable precautions are observed, no untoward results can follow vaccination.

One death occurred during the year 1917 from smallpox.

TYPHOID VACCINE

The splendid value of typhoid vaccine as a preventive measure on the part of the individual has been so often demonstrated by armies in camp, that its use has been made imperative among the armed forces of the world, as well as many independent organizations in every land. Through its universal use typhoid, once more to be dreaded and often more fatal than the bullets of the enemy, has been successfully banished. Desirous of extending every method within its means of proven merit for the prevention of disease to the people of the State, the Board decided at one of its first meetings to place typhoid vaccine in common with smallpox vaccine, upon a similar basis of free distribution. The only requirement is that, the different physicians write to the Executive Officer, giving the quantity that can be used, and the amount specified is sent out to them by the first mail. By consulting the table showing the distribution, by counties, it is seen that a great many people have availed themselves of this opportunity of acquiring an immunity to that disease and it can safely be predicted that the measure will grow in pop-

ularity as the information concerning its distribution is given a wider publicity.

Last year, 1917, some nineteen hundred and seventy-three treatments of typhoid vaccine were distributed by the Board.

DISTRIBUTION OF BIOLOGICAL PRODUCTS

The distribution of biologicals by months and by counties has appeared to be of sufficient interest to warrant the compilation of two very interesting tables. As has been previously mentioned, smallpox and typhoid vaccines are furnished free of charge to the individual. * Diphtheria and tetanus antitoxin and rabies vaccine (Pasteur treatment) are only furnished free to the indigent.

The manner of disbursement of these products which has been in vogue has many commendable features. The system supplies, at convenient places, biologicals at a reduced price to those able to pay for them and at the same time places them where they will also be quickly available for those unable to pay. It is a well understood fact that the success attending their administration largely depends upon their quick application in effective quantities. The expense of consignment has been borne by the manufacturer, the State paying only for those products which were upon the attending physician's certificate used in the treatment of indigent cases.

Of late considerable confusion appears to have arisen among the dealers, over the terms of contract, the procedure necessary to secure reimbursement for biologicals furnished indigents, etc. Many have allowed their stocks to become badly depleted and others have abandoned their contracts altogether. As a consequence it has become necessary to consider and devise a better method for the distribution of these products. Full information concerning the details of which the Board hopes to be able to make public within the next few weeks.

MONTHLY DISTRIBUTION OF BIOLOGICAL PRODUCTS

	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
No. of Smallpox Patients.	1	0	12	21	8	5	10	1	0	0	8	2	68
Anti-Smallpox Vaccine Points	500	0	1500	1500	2000	0	0	0	8000	2000	0	50	15550
Anti - Typhoid Vaccine Prophylactic	70	50	20	117	52	79	97	289	399	434	329	37	1973
Diphtheria Antitoxin Curative & Immunizing	33	15	11	6	6	4	8	9	13	97	80	15	297
Tetanus Antitoxin Curative & Immunizing	4	0	1	1	0	2	2	1	0	41	2	0	54
Anti-Rabic Vaccine.....	9	15	29	9	13	5	7	12	17	6	2	10	134

Distribution of Biological Products By Counties

County	No. of Smallpox Patients	Anti-Smallpox Vaccine Points	Anti-Typhoid Vaccine Prophylactic	Diphtheria Antitoxin Curative and Immunizing	Tetanus Antitoxin Curative and Immunizing	Anti-Rabic Vaccine
Alachua	35	22	1	2
Bay	17	..	..
Bradford	6	..	..	1
Brevard
Broward	10	..	..	..
Baker
Calhoun
Citrus	8	..	..	..
Clay	22	..	..	1
Columbia	3	..	..
Dade	146	..	1	3
DeSoto	506	3	..	1
Duval	26	6000	254	38	51	74
Escambia	16	..	26	12	2	2
Franklin	26	13	..	..
Flagler	5	..	..
Gadsden	10	..	..	10
Hamilton	2	..	..	3	..	1
Hernando	33	..	1
Hillsborough ...	8	..	188	..	..	3
Holmes	2	..	..
Jackson	1	..	20	..	..	3
Jefferson	5
Lafayette	13	..	..	..
Lake
Lee	1	..	32	..	..	..
Leon	115	3	..	5
Levy	50	..	..	..
Liberty	2
Madison
Manatee	7	2	..	..
Marion	3	..	..	..
Monroe	7	5	3	..
Nassau	11	..	..	..
Okaloosa
Orange	3	..	13	2	..	..
Osceola	6	..	..
Okeechobee	6	..	..	..
Palm Beach....	1	..	11	25	..	..
Pasco	1	..	..	..	..	..
Pinellas	160	13	..	..
Polk	100	38	..	..
Putnam	1	88
St. Johns	24	..	..	..
St. Lucie.....	13	31	..	1
Santa Rosa.....	5	..	..

Distribution of Biological Products By Counties—(Continued)

County	No. of Small-pox Patients	Anti-Smallpox Vaccine Points	Anti-Typhoid Vaccine Prophylactic	Diphtheria Anti-toxin Curative and Immunizing	Tetanus Anti-toxin Curative and Immunizing	Anti-Rabic Vaccine
Seminole
Sumter
Suwannee	29	3	..	10
Taylor
Volusia	132	11	..	..
Wakulla	20	..	..	..
Walton	70	2	..	..
Washington	75	..	..	2
Total.....	68	15,550	1,973	297	54	134

EXPENSES

When the present Board assumed its duties in June they decided to request the Governor of the State to have the financial accounts and records of the State Board of Health given a thorough auditing. Mr. R. A. Gray, State Auditor, was detailed for the work. After a full investigation and an examination of the books, vouchers and records of the Board in the Executive Office, he reported that the "records appeared to have been kept up and all monies drawn from the State Treasury on requisition, have been properly accounted for by properly approved vouchers."

The following statements from the Comptroller's Office and from the Executive Office, give an accurate account of all monies that have been available for health purposes, as well as the expenditures of the different departments of the State Board of Health, for the past year. It is also possible to supply, through an index card system, the different items of expense, as well as the purpose for which they were contracted.

In conclusion the State Health Officer desires to thank the members of the Board for their approval of his policies, for the betterment of health conditions. He would also express his appreciation to his different co-workers for their loyalty and co-operation in the efforts which are being made

in behalf of the welfare of the State, and he feels that because of what is being accomplished, the public should continue to extend the Board the same confidence and trust which it has always been accustomed to bestow upon it.

Respectfully, submitted,

W. H. Cox,

State Health Officer.

FINANCIAL STATEMENT

Crippled Children:	
Salaries	\$ 1,412.50
Hospital care	4,445.26
Corrective Aparatus	674.54
General Expense	12.75
Total.....	\$ 6,545.05
Bureau of Education:	
Salaries	\$ 2,354.14
Literature for Distribution.....	462.57
Library, Text Books and Journals.....	332.25
Demonstration Train	1,253.65
General Expense	382.61
Total.....	\$ 4,785.22
Medical Inspection School Children:	
Doctor's Fees	\$ 1,711.10
Total.....	\$ 1,711.10
Executive Office:	
Salaries	\$ 7,863.31
Salary State Health Officer.....	3,000.00
Traveling and living expense S. H. O.....	1,370.38
Building Maintenance	573.06
General Expense	2,623.37
Total.....	\$15,430.12
Protective Inoculation:	
Vaccine and Serum.....	\$ 5,139.55
Total.....	\$ 5,139.55
Meetings of the Board:	
Mileage and Per Diem.....	\$ 1,207.56
Clerical help President S. B. H.....	150.00
Total.....	\$ 1,357.56

Field Service:

Salaries District Officers.....	\$20,162.03
Salaries District Nurses.....	4,512.50
Traveling Expense	7,310.15
General Expense	463.88
Doctors' Fees Account Smallpox.....	86.99
Salaries Sanitary Patrolmen.....	2,925.79

Total..... \$35,461.34

Isolation Hospitals:

Tampa	\$ 374.44
Pensacola	272.88
Total.....	\$ 647.32

Jacksonville Laboratory:

Salaries	\$ 6,322.23
Animals and Food.....	117.40
Containers and Supplies.....	531.20
General Expense	1,016.67

Total..... \$ 7,987.50

Tampa Laboratory:

Salaries	\$ 5,301.62
Animals and Food.....	133.64
Containers and Supplies.....	303.33
General Expense	1,086.72

Total..... \$ 6,825.31

Pensacola Laboratory:

Salaries	\$ 2,719.92
Animals and Food.....	6.80
Containers and Supplies.....	49.52
General Expense	312.15

Total..... \$ 3,088.39

Miami Laboratory:

Salaries	\$ 2,281.58
Containers and Supplies.....	185.31
General Expense	177.68

Total..... \$ 2,644.57

Tallahassee Laboratory:

Salaries	\$ 969.96
Containers and Supplies.....	788.07
General Expense	128.93

Total..... \$ 1,886.96

Key West Laboratory:

General Expense	\$ 135.30
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Total..... \$ 135.30

Bureau of Engineering:

Salaries	\$ 3,324.62
Traveling Expense	419.01
Sewage and Water Laboratory.....	183.16
General Expense	743.13

Total..... \$ 4,669.92

Bureau of Vital Statistics:

Salaries	\$ 5,637.02
Registrar's Fees	4,088.00
Traveling Expense	58.70
General Expense	1,951.55

Total..... \$11,735.27

Veterinary Bureau:

Salaries	\$ 4,557.88
Traveling Expense	362.63
General Expense	21.80
Glandered Animals	150.00

Total..... \$ 5,092.31

Printing, Stamps and Stationery:

Executive Office	\$ 1,264.78
Members S. B. H.....	35.12
Field Service	287.23
Bureau of Engineering.....	199.81
Vital Statistics	1,499.30
Bureau of Education, Health Notes, etc.....	3,422.60
Jacksonville Laboratory	504.80
Tampa Laboratory	244.85
Pensacola Laboratory	99.64
Miami Laboratory	79.28
Tallahassee Laboratory	247.41
Veterinary Bureau	54.85

Total..... \$ 7,939.67

Miscellaneous:

Expenditures not distributed to departments..	\$ 2,426.39	\$ 2,426.39
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Total..... \$125,506.85

STATEMENT OF RECEIPTS AND DISBURSEMENTS

(Under Section 1133 General Statutes)

Total amount received from the Comptroller Jan. 1, 1917, to Jan. 1, 1918.....	\$ 7,500.00
Total Disbursements under (Section 1133).....	5,070.23
Returned to Comptroller under Section 1133.....	226.76
Refunds to State Board of Health for goods sold, returned to Comptroller	449.29
Original Balance in First National Bank at Tampa (since transferred to Citizens Bank & Trust Co.).....	776.42
Total Balance in Citizens Bank & Trust Co., at Tampa, Jan. 1, 1918	2,979.43

STATE TREASURER'S REPORT

Receipts from half mill tax, 1917.....	139,028.25
Receipts from tax redemption and other miscellaneous items....	9,306.82
Total.....	\$158,335.07

STATE COMPTROLLER'S REPORT

Balance in Treasury Jan. 1, 1918, to credit State Board of Health Fund	\$ 37,184.57
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REPORT OF DR. HIRAM BYRD

PRINCETON, FLA., Feb. 9, 1918.

STATE BOARD OF HEALTH,
Jacksonville, Fla.

GENTLEMEN:

I have the honor to submit the following report of my work in the field since November 1st, when it was taken up:

There have been a few cases of dengue, measles, meningitis, chickenpox and two of smallpox which have received the usual attention. But by far the greater part of my time has been taken up with school inspection service, which becomes thereby the chief subject of this report.

As you recall, last summer while in the office, I asked the authorities of Dade County if they would not give us a Social Service Worker for the schools of the county, and that they consented to do. You will recall further that this action had the sanction of the Board in session, but it was not actively put into effect till I came down to this district in November. Upon arriving here I made early preparations to co-operate with the County Board of Public Instruction in the matter, which resulted in the getting up of a suitable card and instituting a service of a permanent nature. This co-operation between the State Board of Health and the County Board of Public Instruction consisted of the county furnishing the Social Service Worker and by putting her in training and supervising her work. When it was fairly started I next put it up to Palm Beach County and they likewise decided to co-operate with the State Board of Health in the matter. This done, I then put it up to Broward County, with like results.

I had previously been invited to address the State Educational Association at Daytona, Christmas week, upon the subject of Medical Inspection of Schools. This address merely consisted of telling what these three counties were doing. It was received very kindly by the Association. Mr. Claxton, U. S. Commissioner of Education, was present and commended the plan. The Association passed a resolution of endorsement and asked that it be extended to the entire State. Soon

after this an invitation was received to present the matter to Lake County at their annual School Fair. This I did, upon advice from the office, last week. It was presented at an informal meeting of the Board. They were to take action on February 4th. Superintendent Brinson of Marion County, was present and asked me to make an appointment to present it to Marion County. Also Superintendent Sheppard was present and asked me to make an appointment for his Board. Following the meeting at Tavares I went to Orange and informally presented the matter to Superintendent Johnson and the Chairman of the Board, Mr. Knox. They have it under consideration. Returning to Titusville I presented it to Brevard County on February 4th. They took it under consideration and on the 5th wired me that they had taken favorable action and requested me to make early preparation to put it into effect in that County. I have since heard from Lake County, and they likewise took favorable action and request its early institution.

Summing up: Of the eight counties in my district, four have taken definite action to put on this service in co-operation with the State Board of Health, namely: *Dade, Broward, Palm Beach and Brevard. Of the remaining four, Orange has it under consideration, St. Lucie will likely incorporate it in their budget for next year, Okeechobee has not been approached, and in Seminole I have merely had a talk with the Superintendent.

Outside of my district, Lake County has taken definite action, Volusia and Marion have both extended invitations, as well as the Superintendent of Lafayette, who requested me at the Daytona meeting to come over to his county as soon as I could make it convenient.

The work is bearing definite results, which is very pleasing to the counties where it has been put on. For instance, in Palm Beach County thirteen cases of trachoma were turned up in a single school, amounting to 9%. At this little town,

*—The original arrangement in Dade may have to be changed as it seems too much for Mrs. Bain in connection with her work as attendance officer.

Delray, there is no eye specialist, so preparation was made to take them to Miami for treatment. So next Sunday morning, February 10th, these thirteen patients, together with Social Service Worker, accompanied by the local doctor, Dr. Cason, and the local member of the School Board, Mr. Schrader, will drive down to Miami, where I am to meet them at Dr. Hodsdon's office and treatment will be given.

I have purposely kept out of the press, but tonight I find an editorial in the Palm Beach Post of February 8, commending the work very highly. I have been asked for an interview for the Miami Herald for Sunday.

As regards the Medical Inspection outlined by Dr. Cox, for such counties as cannot see their way clear to co-operate with the Board, I am sorry that for lack of time I have been unable to get to it. These counties that are putting on this co-operation have literally consumed all of my time, and it seemed to me most important that they should be looked after first, as thereby other public health workers are brought into the service without additional expense to the Board. In these five counties about seven thousand dollars worth of public health work is now provided for merely by the Board giving its co-operation.

Respectfully submitted,

HIRAM BYRD.

REPORT OF DR. W. R. WARREN
District Health Officer

KEY WEST, FLA., February 1, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

DEAR DOCTOR COX:

I have the honor to submit the following report of the District Health Officer for the Islands of the Key West Extension, since appointment to office last June:

During this period my activities, aside from the routine duties pertaining to the office, have been along lines of general improvement of the sanitary conditions of Key West, co-operating with the city and U. S. government in an effort to eliminate these things detrimental to health.

A clean-up regime has been inaugurated with the determination to make it a continuous performance. The city authorities have passed sanitary ordinances relating to nuisances and screening, with penalties for their violation. These ordinances are in harmony with the regulations of the State Board of Health.

During the past three months there have been a number of cases of measles and German measles reported from Monroe County. Many of the cases developed among new comers a few days after their arrival; some of the cases were found in the families of men in the U. S. service and other cases among those who have come here to be employed in construction work for the Government. The period of incubation was not long enough for the disease to have been contracted here. In this way the general dissemination of measles throughout the State and both coasts, has been effected.

I am gratified, however, to be able to report that no fatalities have occurred among the men in service from any communicable disease at Key West. This is due probably, in large measure, to our mild climate and daily sunshine.

Typhoid Fever: There have been no cases of this disease

reported since I came into office. This is due, no doubt, to the daily collection and disposal of refuse, the screening of all food for sale in the raw state and the screening of cess-pools. As a consequence flies have been materially reduced in numbers and since they are the principal carriers and disseminators of the contagium here, the chances of infection are accordingly lessened.

Scarlet Fever, Smallpox and Malaria: There have been none of these diseases reported during the past year, and I know of no cases to have occurred.

Measles, Pertussis and Varicella are being reported at the present time, and I am trying to prevent the spreading of these diseases by insisting on the isolation of cases, publishing your press services, information letters and addressing teachers and pupils concerning the sources of infection and the means of prevention.

Diphtheria: There have been three cases of Diphtheria reported during the past six months with one death.

Leprosy: Contrary to current reports and beliefs, this disease is not on the increase in Key West. Owing to the false rumors circulated, some of which reached the State Health Officer, I carefully investigated all cases under suspicion and found many supposed lepers to have pronounced cases of Vitiligo. The few cases of true Leprosy are isolated and have been reported to the Health Officer.

It is unfortunate that the real facts concerning the disease are not more generally known. The idea of its being very contagious and loathsome has been handed down from the ancients and must have acquired their information from reading the Bible, added to the statements of those without knowledge of the disease.

After careful observation, investigation and questioning for twelve years, I have found no trustworthy evidence of a person having contracted the disease from intimate association with a leper. On the other hand there is much evidence to prove that there are many who have associated with lepers most intimately and over a long period of years, without presenting any symptoms of the disease. Until, however, a na-

tional Leprosorium is established, isolation is the only practicable method I know of, in dealing with the problem, and it is the one I have adopted with your sanction.

The designation of Key West as a training station for naval reserves, the establishing here of an aviation field and school of aviators, together with the proposed increase in the army forces and recognition of this place as an important port of call for a great many ships, have made it necessary to exercise more than ordinary vigilance in sanitary matters. I have therefore invited suggestion and co-operation from the medical officers of the service and they have offered their services, that the desired conditions may be more speedily brought about.

Finally, I desire to express my appreciation of the earnest co-operation and aid rendered me by the State Health Officer and his assistants, to whom I have frequently applied for council in matters pertaining to the duties of District Health Officer.

Respectfully submitted,

W. R. WARREN,
District Health Officer.

REPORT OF DR. A. W. UNDERWOOD
District Health Officer

ST. AUGUSTINE, FLA., February 10, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

MY DEAR DOCTOR:

I would respectfully make the following brief report of my activities during the past few months:

My instructions having been to work on a constructive basis, I have bent all my energies to that end, and, I am pleased to say that it has been successful beyond my anticipation.

Have made several trips covering every part of my district, have come in contact with those in authority and those interested in the betterment of health conditions, and after a conference with those interested have been given the utmost encouragement and assistance.

In nearly all sections there has been a noticeable improvement as to sanitary conditions, and the way has been paved for a greater effort in the year to come.

In only one instance have I been compelled to resort to the law, to have my suggestions complied with, and in that case the violations of all sanitary laws was of such a willful nature I was compelled to take drastic action, which was successful beyond my expectations.

We have been fortunate in not having had any serious epidemic in my district the past year and no more than the usual amount of sickness.

During the past several weeks I have visited public schools in my district and made examinations of the children, the sanitary conditions of the grounds and outbuildings and elicited the support of the teachers in our work.

This itself is a large undertaking and must be of inestim-

able value in time to come. In all cases I have met with the most hearty support of both teachers and those in authority and were it not in so many cases appalling to meet so many defects that could be easily remedied it would be a work of interest.

In those cases where the deficiencies can be remedied at no great effort I have taken the matter up personally with the parents or guardians of the children and have been assured that the child would receive the needed attention.

One matter that should receive attention (in my district at least) is the matter of having the State law complied with as to sanitary closets at rural schools. In many places they are little more than makeshifts, with no privacy about them and most insanitary.

I have refrained from making any suggestions as to the manner in which they should be constructed until such a time as some universal plan should be agreed upon for their construction by your honorable Board.

My predecessor in this district advocated the pit system and insisted on its use, but it has not in most cases proven to be efficient and has given me a great deal of trouble.

Viewing the subject as a whole I feel that much has been accomplished and I am happy to say that in nearly all cases old prejudices have been broken down and I am receiving the hearty support of not only those in authority, but also those who are to receive benefit from a more sanitary condition than has existed in the past.

There are yet many places that are far from what they should be, but the leaven is working and I feel sure that public opinion will eventually overcome personal antipathy and we shall have accomplished our purpose in carrying the gospel of good health into every home in the State.

In conclusion, allow me to say that in this work I have received the most hearty support of all in authority. Especially would I extend to yourself and Mr. Ed Earnest, a member of your Board, in my district, my most sincere thanks for the

patience and encouragement I have been given, without which I could not have done the little I have done.

I am looking forward to a year of renewed activities and I trust the results may prove to be of marked benefit, as I have no doubt they will if I can have the same support which has been so freely extended me in the past.

A. W. UNDERWOOD,
District Health Officer.

REPORT OF DR. A. C. HAMBLIN
District Health Officer

TAMPA, FLA., February 15th, 1918.

STATE BOARD OF HEALTH,
Jacksonville, Fla.

GENTLEMEN:

During the six months I have been in your employ I have met with two epidemics of typhoid. In the first there were sixteen cases in one small community and all of these in houses not screened. No cases developed in screened houses though there were twelve in the neighborhood.

In the second there were twenty-three cases, all in a thickly settled country district where there was no screens or sanitary privies.

In both instances mentioned we made house to house survey and gave immunizing typhoid vaccine without a single case developing afterwards.

In the two localities we vaccinated about four hundred people.

I have met with smallpox in four localities. Have had several cases of other contagious diseases but no epidemics.

During these months I have worked in all incorporated towns in my district; know all the mayors, the chairmen of the various committees, have met with nearly all the councils in special sessions and discussed with them every feature of sanitary conditions; have had new ordinances adopted and others modified.

I have visited many of the smaller unincorporated towns and find them willing to listen and take steps in general clean-up days and building pit privies. I find the women's clubs of great help in most all towns.

I have met and formed acquaintances in the small towns who are in some degree interested in my work and are very friendly, insisting on my returning to help them.

As to the merchants and market men and fruit dealers in

the larger towns even these who have spent money for me, as do all the officials seem to be my friends.

I look after not only the things directly in towns, but go out and hunt up the dairies and slaughter houses, water supplies, etc. I have insisted on sewer connections and have seen near three hundred made; have had more than a hundred sanitary privies put in aside from the aviation zone.

I visited all the schools in the first part of the year as far as I could, spoke to the children on questions of sanitation, the importance of cleaning teeth and finger nails, of the habit of using others' pencils, cups, handkerchiefs, powder rags and smoking cigarettes.

I pay my respects to old unsightly houses, fences, and in fact, most anything I find that needs condemning for the conservation of health.

While I know that the ice has been broken and the soil turned for better results, I see that the State has been at considerable expense for so little results.

Yours for better conditions,

A. C. HAMBLIN,
District Health Officer.

REPORT OF DR. V. H. GWINN
District Health Officer

JACKSONVILLE, FLA., February 6, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

DEAR SIR:

I have the honor to make the following report on my district for the last six months, beginning July 1st and ending December 31st:

I have endeavored to visit and make a survey of each incorporated town in my district, comprising the counties of Duval (outside of Jacksonville), Nassau, Baker, Hamilton, Suwannee, Bradford and Columbia, and have done so with the exception of Ft. White, Branford, Westlake and Welborne.

In making these surveys conferences were held with the local physicians, mayors and members of the councils. A campaign of intensive sanitation was instituted in the beginning, placing the emphasis on soil pollution and endeavoring to educate the public on the great importance of preventable diseases.

It is a difficult problem to get the people of my district to understand the public Health Officer's work is for their interest and for their protection against communicable diseases, and not mere "propaganda." However, I believe I have made some progress along these lines, and am in hopes that as I become better acquainted with the people of my district, that more and better work will be done.

No epidemic of any great importance has occurred in my district within the last six months, except a local epidemic of Lobar Pneumonia, appeared in Suwannee County, near Nuburn, from November 28th continuing through December. On a visit to this place and investigating, I found that there had been six deaths and eight cases. This disease appeared to have been acute and pernicious, as the deaths occurred within a few days after the beginning of the illness.

In July eight cases of smallpox developed in Bradford County, about ten miles from Lake Butler. These cases were all in one colored family and were naturally well isolated in the country, therefore the usual precautions and advice were given them regarding the disease and importance of isolation. I vaccinated twenty-five others in that community, consisting of eighteen white and seven colored. But one other case developed in that community and that one a colored man who had been exposed.

A few cases of diphtheria occurred in Bradford County and I made special visits to Starke and Raiford, in an effort to control this disease. At Starke there was some excitement, as school was in progress and a case developed in the school room. This case I visited with the City Physician and we had it isolated at home with a trained nurse, and the other children in the home inoculated with the immunizing doses. Only one other case developed and that in another part of the town. The teachers in the school were instructed to closely notice each pupil when they entered their class room, and if any appeared unwell to send them home at once, not allowing them to return until they could present a certificate from their family physician. This close watch of the pupils was to continue daily for two weeks.

I inoculated with the anti-typhoid vaccine one hundred and seventy-five in the Lackawanna section, just outside of the city, and seventy-five at Panama Park, all white, ranging from five years to fifty. Since the new system of school examination has been inaugurated, have visited county schools of Brentwood, Lackawanna, Pickets, Dinsmore and Marietta, comprising approximately five hundred pupils. These examinations were completed in December, and others are being made.

Have seen only a few cases of typhoid, namely, one in Duval County, one at Live Oak, and one at Watertown, Columbia County.

Chickenpox and measles have been more or less prevalent, but have not interfered with the progress of the schools, except absence of those afflicted with the disease.

I have emphasized to the teachers of the schools the importance of excluding children from school appearing to have

any disease that might be communicable, until they can be investigated by the family physician.

Through your kindness in obtaining permission from the Honorable Board, I had the great pleasure of attending the annual meeting of the American Public Health Association, held in Washington, D. C., October 17th to 21st. I believe this time was very profitably spent. The able papers read and discussed by the leaders of public health work of America was very instructive to me. Permit me here to express my great appreciation of the kindness and many courtesies shown me by you and your able assistant.

Respectfully submitted,

V. H. GWINN,
District Health Officer.

REPORT OF DR. J. E. TAYLOR
District Health Officer

LIVE OAK, FLA., February 4, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

DEAR DOCTOR:

In compliance with your instructions, I give below a brief resume of my work as District Health Officer for the last six months of 1917:

Beginning early in July, I made a complete tour of my district, which now is composed of the following counties: Madison, Jefferson, Leon, Gadsden, Wakulla, Liberty, Franklin, Calhoun, Jackson. On this trip I visited every incorporated town and met the different mayors and councils as well as most of the local physicians. After obtaining as much information as possible by going over the ground, talking with physicians and citizens about sewage disposal, water, dairies, etc., a meeting of the council was had and conditions laid before them, with such suggestions as to the betterment of affairs as appeared feasible. Without exception, I found them ready to co-operate in every possible way. In those places where a full time marshal is employed I was able to have him made ex-officio sanitary inspector and especially instructed to watch out for violations of either municipal or State health laws. In several of these towns supplementary ordinances were passed. I was successful in most places in getting a local physician designated as City Health Officer, and in Leon County and Jackson County physicians agreed to act as county epidemiologists. Dr. C. M. Ausley is county epidemiologist for Leon, and Dr. N. A. Baltzell for Jackson.

CONTAGIOUS DISEASE DETAILS

During the period covered by this report I have had executive details to assist in handling outbreaks of contagious diseases as follows:

Town	Disease	No. of Cases on Arrival	Results
Newberry	Diphtheria	One	No Spread
Micanopy	Diphtheria	One	No Spread
Wellborn	Diphtheria	Three	No Spread
Live Oak	Diphtheria	One	No Spread
Apalachicola	Diphtheria	Three	No Spread
Carrabelle	Diphtheria	One	No Spread
Perry	Scarlet Fever	Two	No Spread
McAlpin	Typhoid Fever	One	No Spread

NUISANCES

Sanitary nuisances have been reported from Lanark Springs, Port St. Joe and Live Oak. All were abated without friction.

SPECIAL DETAILS

A week was spent in Jacksonville attending a meeting of the District Health Officers of the State. This meeting was most inspiring and helpful. Speaking for myself, I know of nothing that would be more valuable than a week spent in such a meeting once a quarter. The ideas and a discussion of the work of the several men, as well as the other departments of the State Health service, results in increased efficiency, a greater degree of system in our work and more enthusiasm.

The trip to Washington to the annual meeting of the American Public Health Association was enjoyable. These meetings are, to me, educative in a high degree. Comparing my ideas and methods of approaching problems with those of other men similarly engaged, and who are recognized as authorities, gives me more self-confidence when I find I am proceeding along the lines they have found most satisfactory and corrects me when I find I have been doing things in a manner not approved as best by the latest research.

SCHOOL INSPECTION

School inspection began in Madison County early in December, and is completed with the exception of some special eye work, however, I do not think a report of this work now would be of any value and in some respects would be mis-

leading. A full report of this work for my district will be available for the next annual report. I am in entire sympathy with this part of our work, and believe the data we will be able to collect will prove of inestimable value in future school work and public health work generally as well as stimulate parents and communities to further efforts in remedying the defects noted. Approximately 2,300 children have so far been examined.

In conclusion I wish to express my appreciation of the sympathy and co-operation of the executive and other departments in my work.

Respectfully submitted,

J. E. TAYLOR, M. D.,

District Health Officer, Live Oak District.

REPORT OF DR. H. O. SNOW
District Health Officer

TAMPA, FLA., February 11, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

DEAR DR. COX:

I beg leave to report for the last six months of the year 1917, that I visited every incorporated town in my district and made a sanitary survey of each of them. I found a great many of the towns in rather a bad condition. I have met with the councils or commissions in some of them, and have gone over conditions as I found them, and told them what the Board of Health required them to do in order to comply with the law; and, in the majority of instances, have met with the heartiest co-operation and support from these bodies. In those towns where I could not get the governing body of same to talk to, I have taken up the matter of sanitation with the mayor or some other authority, and have shown them what was required, and have had them promise to see that the law was enforced.

In a good many towns there were no sanitary ordinances, and I have had copies of a model ordinance made and furnished, and same has been passed by all but a few, and they are in the course of passage at the present time.

I have had a number of L. R. S. privies installed and am sure that a great many more will be installed in the next two months, making in all several hundred in my district. I am pushing these installations at the present time, particularly on account of the approach of the fly season, as we are all more than anxious to reduce the morbidity as well as the mortality from fly-borne and other communicable diseases.

There have been a number of incipient epidemics of diphtheria and other infectious diseases at various points in my district, but, with the co-operation of the local physicians and the prompt action and support of the local authorities, I have

been able to control and stamp them out, and I am glad to report that the mortality from the same has not been as high as might be expected. I have been able to get quite a few to take the immunizing treatment for typhoid fever, and am lending every effort to encourage the use of the same throughout my district prior to the beginning of the spring season, and thereby lower the morbidity of that disease.

I have had some rather troublesome cases of diphtheria carriers, but have been able to free them of the infection and make them harmless to the general public.

There has been only one case of Poliomyelitis which was promptly recognized and isolated, and no new cases developed. I was fortunate enough to be able to trace this case to the source of origin and isolated the original case for a time with a warning of the possibility of being a carrier, which had a good effect and result.

I have attended a number of meetings of the Local and other Medical Societies and read a paper on "The Duties of the Sanitary Officer in the Prevention of Diseases" before the Tri-County Medical Society. It has been my pleasure to attend several meetings of the last named society where I was most courteously received, and assured of the hearty support of that body to the Board of Health.

I have inspected and addressed a number of the schools in the district and hope to be able to inspect almost, if not quite all, of them before they close for the year. I have found a number of the schools in bad sanitary condition, a great many of them have been properly looked after and by the time the next school year begins I expect to have them all in first-class sanitary condition. I am glad to report that one of the counties by the end of February will have a septic tank closet at every school.

Respectfully submitted,

H. O. SNOW, M. D.,
District Health Officer.

REPORT OF DR. GEO. A. DAME
District Health Officer

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

DEAR DOCTOR:

I desire to hand you herewith a brief report of work in my district during the last six months of the year 1917:

This district has a population of about one hundred thousand people, scattered over a territory larger than the combined area of Rhode Island and Connecticut, and with the exceptions of parts of Marion and Alachua counties is very sparsely settled. There are, in fact, only two small urban populations in this district: Ocala, with approximately six thousand population, and Gainesville, which has seven thousand. Until recently the mining of hard rock phosphate was probably the largest single industry in this district, giving employment to a very large percentage of the population. This business has been suspended since the beginning of the great war. I mention these two conditions, the sparseness of population and the financial depression following the closing down of their greatest industry, as especially bearing upon the public health problems in my district.

SANITATION

I have gone into this problem more from a standpoint of education than from that of a violent enforcement of a law which has been virtually unknown to 95 per cent. of the people. I have thought it best to use tact and persuasion in bringing people to a better understanding of the methods and purposes of proper sanitation.

I have especially stressed the necessity of sanitary privies in rural communities in the stamping out and prevention of hookworm disease and other privy-borne diseases.

I am glad to report that there is improvement, and in many instances very marked improvement in sanitary conditions in nearly all the towns and communities in this district.

I estimate that I have within the six months had one thousand sanitary privies constructed in the six counties.

MORBIDITY REPORTS

Not being content to charge wind-mills, we must keep ourselves thoroughly informed of every phase of disease in the State; the disease existing, its location, its extent, its character and severity. I have personally explained to nearly all of the physicians in my district the purpose and value of these reports and have urged their compliance and co-operation.

It gives me pleasure to note that in this district the physicians are so well aware of the importance of this matter and are in such harmony with the purposes of the State Board of Health that, while not having more than their share of cases, have repeatedly reported a very much larger number than the physician in the other district; in fact, one week reporting one-third of all the cases in the entire State.

EXAMINATION OF PUBLIC SCHOOL CHILDREN

It is of necessity that I touch only lightly, at this time, on this very important undertaking. This report being made only for the last half of the year 1917, can only cover this subject for a period of about two weeks, having received blanks and other papers only about fifteen days before the beginning of the holidays. The magnitude of this task and its overwhelming importance to all the people of the community, but more especially to poor or neglected children, can only begin to be appreciated when you have been in daily contact with the startling preponderance of preventable disease and defectiveness. I am glad to report that I am, as a rule, receiving the cordial support and co-operation of teachers, parents and children.

EPIDEMICS

There have been a number of small epidemics of measles, mumps, German measles, whooping cough and chickenpox, and a few outbreaks of typhoid fever and dysentery, but a prompt and vigorous application of the proper means and methods

of control has in each instance succeeded in holding them in reasonable bounds, if not in completely stamping them out.

In conclusion I wish to report that my relations with the people in my district, with my fellows, and with my superior officers are both cordial and sympathetic.

With kindest personal regards, I am sincerely,

GEO A. DAME,
District Health Officer.

REPORT OF DR. F. L. TATOM
District Health Officer for the Western District of Florida

DeFuniak Springs, Fla., Feb. 1st, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

DEAR DOCTOR:

In compliance with your request I beg to submit herewith a report of my activities as District Health Officer for the Western District of Florida, comprising the counties of Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington and Bay. The annual report of the State Health Officer is burdened with many detailed reports of the various bureaus and activities of the State Board of Health and believing that a detailed report of the District Health Officers which you have on file in your office, some of which are included in the reports of the various departments, would not be of interest and an unnecessary burden on your annual report, I am going to Hooverize and only give a brief resume of my activities as Health Officer of this district. Soon after I assumed the duties of this office in June, 1917, I had the pleasure of attending a meeting in Jacksonville of all the District Health Officers and heads of departments of the State Board of Health called by the State Health Officer for the purpose of discussing public health problems of Florida, confronting the State Board of Health. Several days were spent in this meeting in discussing these problems and ways and means of meeting them. This meeting was not only a great pleasure but most profitable and inspiring and has been of inestimable value to me in my public work and I would urge that these get-together meetings be held at regular intervals, say three or four times each year. On my return from this meeting I made a trip covering my entire district getting acquainted with those people with whom my work would bring me in contact. I visited every incorporated town and many of the small towns and communities, investigating sanitary conditions, and called the

attention of the mayor and councilmen in the incorporated towns to such conditions as were likely to affect the health of the community. In most instances I was most cordially received and welcomed and was promised most hearty cooperation in putting into force my recommendations. Practically every town of two thousand population or over had passed and adopted the public health ordinances recommended by the State Board of Health. The ordinance relating to the screening of meats and vegetables, etc., was generally complied with but the ordinance relating to the screening of privies was not. In most towns visited there was evidence that an effort had been made to comply with this law but was soon abandoned for the reason, that it was found useless to try to enforce a law that was accomplishing nothing. The fault lies with the privy itself. The construction of the ordinary surface closet, such as we have all over this country, is such that it is a matter of impossibility to maintain in a sanitary condition without such daily care and supervision as few people will bother with. If built to the very best specifications it has inherent faults that are almost insurmountable. Rains, chickens and hogs, wash, scratch and root holes under the screen behind and the sun warps and shrinks the frame and planks, leaving holes for flies to enter. Children and some grown-up people leave doors open and seats uncovered, to say nothing of the difficulty of maintaining screens under conditions such as obtain in a location where they are being constantly acted upon by water, ammonia fumes, etc.

In the hope of finding some method that I could recommend as a solution of the open privy problem I visited the cities of Atlanta and Birmingham at my own expense and investigated their method of night soil disposal. In both these cities cans are used in screened privies and collected once a week and emptied into the sewers. In Atlanta tank wagons are used. The cans are taken from the privy and emptied into tanks, then carried to some convenient place connected up with the city water mains and flushed into the sewer. The city of Birmingham carts the cans in open wagons or trucks, leaving a clean one in the place of the one removed. While

this method has much to recommend it, it is far from a solution of the problem as flies gain access to the cans during the interval between the cleanings just as they do in all open closets as I had occasion to observe in my inspections of a number of the privies in each of these cities.

Every attempted solution of the open privy has been a failure and any further effort in this direction should be abandoned. The only solution of the privy problem in sight at present is the septic tank cess pool or L. R. S. privy, and I would recommend that the Florida State Board of Health adopt two or three of the best types of these privies to meet the varying conditions in different locations and concentrate our efforts in having these installed and not waste more time in futile efforts in attempting to maintain surface toilets in a sanitary condition.

One of the great obstacles that I find to the enforcement of sanitary ordinances in the small town is that the office of marshal being an elective one, depending upon the suffrage of the people for his office, the marshal is very loath to enforce any ordinance which is likely to make personal enemies and the loss of votes. This does not apply to all of these officers for many of them are fearless, conscientious men and do their duty regardless of consequences. If by legislative enactment the law could be changed, having the marshal appointed by the council and subject to summary dismissal, much better results would doubtless be had in the enforcement of all ordinances. However, city charters would probably have to be amended to enact any law of this character so the hopes of relief in this direction is very remote.

INSPECTION TRIPS THROUGH THE DISTRICT

Since my first trip covering my entire district, no regular schedule has been observed in going over the territory. The calls upon my time for the investigation of communicable diseases, the abatement of nuisances, etc., have been many, and I have only visited those places where my services were most needed, and the exigencies of the occasion demanded. Some places I have visited but once, while others I have visited as

many as a dozen times. On these visits, in addition to the regular routine work of inspections, etc., I have called upon the local physicians, enlisting their aid and co-operation in the public health work in their localities, and impressed upon them the necessity of promptness in making their morbidity reports, especially of reporting the occurrence of contagious diseases. I have also visited and kept in close touch with all local registrars in the territory covered and believe that the present year will show a decided improvement in the collection of vital statistics from this territory.

COMMUNICABLE DISEASES

During the past few months there has prevailed a widespread epidemic of measles all over West Florida, quite a few cases of which were followed by pneumonia as a sequel, with a few deaths. The exceptionally cold and changeable weather of the past few months has contributed to the unusual number of cases of pneumonia following measles. Owing to the insidious character of this disease, it being equally contagious in its pre-eruptive stage prior to which a diagnosis is impossible, and the fact that a great many people do not call a physician at all, it has not been possible to take any effectual steps to limit its ravages. The people generally regard it as a malady of no consequence, and one of the necessary evils, and some even go so far as to purposely expose their children to it, "to let them have it and be over with it." To illustrate the little regard for this disease and the total disregard for the welfare of others, I will relate an incident that occurred recently on a train on which I was a passenger. A very prominent man, a former State Senator, boarded the train and seeing me came over and asked me "what is the best thing to do for measles?" and informed me that he had begun to "break out" the night before and he was covered with the eruption at this time. This train was crowded with people, including many women and children, and a good many of Uncle Sam's fighting men—soldiers.

Much educational work is needed to convince the people

of the seriousness of this disease and to secure their co-operation in measures for its prevention.

TYPHOID FEVER

Typhoid fever has occurred with its usual regularity over most of this district during the past year and is more prevalent than the reports reaching the State Board of Health would seem to indicate. Several cases of fever which I have had occasion to investigate reported as malaria were proven to be typhoid. There has been but one serious epidemic of this disease in this district since my incumbency as Health Officer. This epidemic occurred at Aycock, a small mill town near Chipley, Florida.

I wish to report this at some length to show the splendid results obtained by anti-typhoid vaccination. The first case in this epidemic occurred about the first of June, 1917, and by July 1st following, at which time I was called to make an investigation, the number of cases had reached nineteen. With me in this investigation were Mr. Geo. W. Simons, Sanitary Engineer of the State Board of Health; Mr. Rice, Sanitary Patrolman, and Dr. Grace of Chipley, Florida, the mill physician. Dr. Grace had been mill physician for the past seven years and said that there had never been a case of typhoid fever there before. The first case developed in one of the houses situated nearest the planing mill privy which was of the ordinary surface type, unscreened, and the cases following seemed to radiate from this point. It is very probable that this first case came from some carrier among the mill crew using this privy.

The sanitary condition of this village, which was situated in a low, flat marshy section, was exceedingly bad. The houses were mostly small, three and four-room shanties, with bed room opening into the kitchen which was also used as a dining room. They were unscreened and readily accessible to the myriads of flies from the nearby privies who were playing take and give between the patients' privies and the dining table. The water supply was obtained from shallow wells with no protection from surface contamination and some of

them were so situated that the surface washings from the privies could gain access to them. There was very little that could be done to remedy the sanitary conditions here as the mill company were about ready to abandon the property on account of being "cut out." Dr. Grace, the mill physician, had managed the situation as well as possible with limited means at his command. He had screened some of the patients with mosquito netting and using antiseptics freely in disinfecting the excreta, so there was nothing more to recommend under the circumstances but to abandon the use of water from the worst wells and boil all other used for drinking purposes, and the wholesale vaccination of everybody in the village which he had already begun. This was promptly done with the remarkable result that not another case developed during the summer following.

DIPHTHERIA

Diphtheria has occurred at several places in this district during the past few months, viz: Milton, Munson, Molino, Pensacola. In the latter city there was a small epidemic, about twenty cases being reported, but by the prompt administration of anti-toxin and isolation and treatment of cases and carriers, the disease was soon under subjugation. No deaths occurred and there was no spread of the disease outside of the immediate families in the three first mentioned places.

WHOOPING COUGH

Whooping cough has been prevalent over most of the district for the past few months. The schools over the district have been notified to exclude from school any pupil having coryza or showing evidence of any rash until examined by a physician.

SMALLPOX

Smallpox has occurred in several communities in Escambia County recently. It is of a very mild type and a good many cases have escaped our vigilance, but all cases found have been isolated and the house placarded. Contacts were not quarantined but allowed their freedom after vaccination.

CEREBRO SPINAL MENINGITIS

During the past month five cases of Cerebro spinal meningitis have been reported from Escambia County. Four of these cases occurred among the soldiers stationed at the Areo Station and Navy Yard and one from the city of Pensacola. At the request of the State Board of Health and the Commandant of the station the Surgeon of the army sent a "flying laboratory" from the Rockefeller Institute and a search was instituted for carriers of this diseases, with the result that seventy-five or eighty carriers of a gram negative diplococcus was found out of a total of about two thousand men examined. All of these men were isolated and treated.

POLYOMYELITIS

During the month of January three cases of Infantile Paralysis occurred in this district. Two of these cases were in one family in an isolated section of Santa Rosa County. The other cases in the city of Pensacola.

EDUCATION

While the routine work of the Health Officer is necessarily educational in character, I have taken advantage of every other avenue that has presented itself for the propagation of knowledge pertaining to sanitation and hygiene, by writing articles on timely subjects for the press. By lectures to schools and talks before the city councils, women's clubs, farmers' meetings and canning clubs. Much valuable assistance has been rendered by several club demonstrators and farm demonstrators. Among those who have rendered valuable assistance I wish to mention Miss Lonnie Landrum, canning club demonstrator of Escambia County, and Mr. G. E. Meade, government demonstrator of Chipley, Florida, for which I wish to express my sincere appreciation for assistance rendered.

MEDICAL EXAMINATION OF SCHOOLS

While the medical examination of school children is of prime importance and deserves our most serious consideration, I regret to report that I have accomplished very little

in this work. With a large district comprising almost one-fourth of the population of the State and embracing one of Florida's most important cities, Pensacola, with a very limited health department, in which city a large ship building is being established, with army and navy activities in progress and the Government urging better sanitation for the protection of our soldiers and citizens and the almost daily calls upon me for the investigation of contagious diseases and the abatement of nuisances, I have had very little time to devote to this most important work.

In conclusion I wish to thank you for the many courtesies shown me and extend to the heads of the various Bureaus my sincere appreciation for their kindnesses and co-operation which has helped to make my public health work a pleasure.

Respectfully submitted,

(Signed) F. L. TATOM,

District Health Officer for the Western District of Florida

REPORT OF MR. GEORGE W. SIMONS, JR.
Chief Sanitary Engineer

JACKSONVILLE, FLA., December 31, 1917.

DR. W. H. COX,

State Health Officer,

Jacksonville, Fla.

DEAR DOCTOR:

I have the honor of submitting herewith for your earnest consideration the detailed report of the Bureau of Engineering for the interval of time from January 1st, 1917, to December 31st, 1917, inclusive:

During the year just closed the activities of the Bureau have become widely known throughout the State, consequently considerable information of a sanitary engineering character has been disseminated. Citizens and municipalities are fast learning that the Bureau exists to assist them in solving the many perplexing problems that confront them along public health engineering lines. Numerous special sanitary investigations were conducted during the year, which have already been, or are eventually going to be, productive of great benefit.

The work of the water and sewage laboratory increased decidedly during the year, it being evident that the citizens of the State are realizing the significance of this work. Unfortunately, during September, the Bureau lost the services of Mr. Arthur F. Shuey, Assistant Engineer, who was in charge of the laboratory work. Since Mr. Shuey's departure to another field this work has been executed by the writer with stenographic assistance.

The increase of work in all the activities of the Bureau and the scarcity of scientific assistants has placed an exceptionally big burden upon us.

I have taken the liberty to divide the following report into several sections, treating each separately.

Very respectfully submitted,

GEORGE W. SIMONS, JR.,

Chief Sanitary Engineer.

INTRODUCTION

Sanitary science embraces those principles and methods by which the health of a community is promoted and the spread of disease prevented. Sanitary science aims to preserve and protect the community's public health under the combined action of physicians, engineers and civil authorities. Sanitary engineering is that branch of civil engineering concerned with the constructions for promoting the health of the community. Such constructions fall generally under Water Supply and Sewerage.

It is the purpose of the Bureau of Engineering to propagate such useful beneficial information and data as will in the end have a direct relation to the community's health. Information is largely forwarded to municipalities in the form of sanitary survey reports, or as results of special investigations.

SANITARY SURVEYS

Throughout the year 1917 the engineering department received numerous requests from municipalities to make sanitary investigations into public water supply utilities, sewerage systems, methods of sewage disposal or general existent sanitary conditions. In each instance detailed and exhaustive surveys were instituted followed by such advisory recommendations as were deemed necessary and essential for the maintenance of health conditions in the community.

The sanitary surveys, as a rule, discuss the utilities under investigation, depicting the faults or errors observed and further contained such suggestions as could most economically remedy the existing conditions. In many instances the surveys would, among other things, contain recommendations for the installation of sewerage extensions or complete new systems, water treatment, refuse treatment and many other observed points, an improvement of which would eventually better conditions. The main aim of the survey is to clearly lay before the community the straightforward, bare facts, after an intensive and extensive investigation, concerning existing conditions and in a simple manner explain how such conditions can be properly remedied. The survey is the plan con-

fronting the people and showing them in a compact form the actual conditions under which they are living and by what means such conditions can be improved.

In addition to many surveys of a general nature, the Bureau has during the year, conducted a number of special detailed investigations of one or more utilities, as for instance, the Moore Haven typhoid epidemic of April, 1917, the sewage disposal of St. Petersburg, the water treatment plant at Orlando, and refuse treatment at Palm Beach.

The special investigations were in each instance of tremendous interest and significance and as a direct result thereof radical changes were sometimes effected.

Sanitary surveys of a general character, treating of water supply, sewage disposal, refuse collection and treatment were made during the year at the following places:

High Springs	DeFuniak Springs	Fort Pierce
St. Petersburg	Fernandina	Titusville
Clearwater	Dania	Lake Worth
Winter Haven	Ft. Lauderdale	Cocoa
Mulberry	Pompano	Lakeland
Plant City	Delray	Mayport
West Palm Beach	Stuart	

After concluding surveys in each of the above cities and towns as noted it is a general practice to meet with the city councils for the purpose of fully discussing the findings made during the survey and offer opportunities for the asking of such questions and acquiring such information as would present itself upon an occasion as this. Following the council session a complete, detailed typewritten report would be prepared setting down the findings together with recommendations.

As previously stated the Bureau is frequently called upon to make a detailed investigation into a given utility, such as the quality of a water supply, the proper and most economical method of sewage disposal to employ, the occurrence of and control of colitis and typhoid epidemics, etc. These surveys are of a more specific and exacting nature and demand the utmost care in compiling the details. During the past year, 1917, these minute, special details have been numerous and in

nearly all instances complete detailed reports have followed the surveys. Following are enumerated the special surveys made during the past year:

HIGH SPRINGS

An investigation into the pollution of the municipal water supply following torrential rains of December, 1916. For several days the water supply was highly colored and normal hardness lowered caused, apparently, by the access of ground water into the underground water bearing strata during high stage of Santa Fe River. Hypochlorite of lime was added to the supply by the State Board of Health in order to prevent infection from polluted water. Liquid chlorine later advised.

LACKAWANNA

The insanitary conditions of drainage ditches located in the Lackawanna district of Jacksonville were investigated, also privies used at the Lackawanna school. The county was requested to make such improvements as would relieve all low ground of stagnant water. The school board was also requested to remodel privies in accordance with offered plans in order to prevent soil pollution and the spread of hookworm.

ST. PETERSBURG

This investigation has consumed considerable time during the year and at the present date investigations are still being conducted. The investigation relates to the most proper and economic method of sewage disposal to employ. The city is facing the problem of treating its sewage accumulation before its disposal into Tampa Bay. The city is growing rapidly and conditions on the bay front necessitate immediate treatment of sewage. Several systems or methods are being considered, one being planned now that will be the most economical and suitable for conditions. Nothing will be done until this Bureau is fully satisfied that the most efficient as well as economic installation is procured.

FLORENCE VILLA

An investigation into the existing method of sewage disposal at the hotel. The system in use was greatly overloaded and not effecting the desired results. Recommendations were made and later carried into

EUSTIS

An investigation conducted into the improper operation of a municipal sewage disposal plant. Following its installation in 1916 the Imhoff sewage tank failed to render anticipated results; later the odor nuisance became unbearable and a call was transmitted to this Bureau. Upon investigation the trouble was discovered and several remedies imparted to the sanitary officer who promptly effected an improvement. Following the investigation the nuisance was easily abated.

DAYTONA

Twice during 1917 the Riensch-Wurl sewage screen at Daytona has been inspected for the purpose of actually determining its performance efficiency. The fine screening process of sewage treatment presents many remarkable prospects for future sewage treatment in this State, consequently the Daytona plant, one of the first in the United States, is receiving considerable attention.

JASPER

The future sewage disposal to be employed at this city was discussed with the city council. Recommendations were made.

PALM BEACH

Garbage disposal as employed at one of the large hotels brought forth numerous nuisance notices from this east coast resort. It was found that in this particular instance garbage was ordinarily buried in trenches with no covering. After a thorough investigation of the colony it was deemed advisable to recommend a municipal refuse destructor, such information being imparted to the city council assembled. Since this meeting the city has followed the suggestions of the Board and has contracted for a furnace.

WINTER HAVEN

During the spring months of 1917 an epidemic of colitis struck the city of Winter Haven. A visit followed, also routine investigations and conferences with medical men. Certain measures were advised and the epidemic abated.

MOORE HAVEN

During February and March, 1917, the settlement known as Moore Haven was infected with at least thirty-seven cases of typhoid fever. A call to the Board instigated a rigid examination which revealed very insanitary, primitive conditions under which people were existing. Three hundred were inoculated during the inspection. Sanitary measures were instituted and recommendations made. These were soon complied with and the epidemic checked.

TAMPA

For some years the water supply furnished the citizens of Tampa by the Tampa Water Works Co. has been the subject of considerable controversy and discussion. Following a "German poisoning" scare during the summer, the Bureau was called upon to make a detailed inspection which revealed much of interest. Recommendations were subsequently forwarded to the Tampa Water Works Co., which were followed to the betterment of health in Tampa.

CHIPLEY

A conference was held with the city council in the presence of sewerage contractors, in order to render advisory suggestions relative to plans and contemplated improvements. The city is following detailed recommendations made by the Bureau during 1916.

AYCOCK

A typhoid epidemic in a lumber camp was brought to the attention of the Bureau, an investigation made and proper control advice rendered to the mill concern.

ORLANDO

For two years the water supply problem at Orlando has been before the Bureau for consideration. During 1916, after a thorough survey and investigation, the Bureau submitted a report to the city council demanding that the Orlando Water and Light Co. install a modern water filtration plant. After several conferences, work was commenced and during 1917 the new plant began operations. This filtration plant is the first in the State of Florida and is a credit to the citizens. Late in 1917 the citizens took steps toward a municipal water system and at this time detailed plans are being inspected previous to the Bureau's approval.

SOUTH JACKSONVILLE

During the summer months a great many people were attracted to the South Jacksonville Natatorium to swim. Among some of the frequenters, cases of eye and ear trouble arose, consequently a rigid investigation of the water condition was instituted to ascertain the cause. Water examinations were conducted and general sanitary conditions were conducted and general sanitary conditions noted. Subsequently recommendations were issued to those in direct charge.

WEST PALM BEACH

An investigation was made of the water supply and sewage disposal of the city. An open, clear surface lake in the western portion of the city furnishes the water supply. The supply, although chlorinated, is the cause of much unrest among the citizens. The Bureau has recommended the installation of water filtration.

GREEN COVE SPRINGS

An investigation was conducted into the water supply of the Southern Cattle Feeding Co., located some ten miles west of Green Cove Springs.

FORT PIERCE

Several months ago the city completed the construction of a concrete reservoir, upon testing, failed and ruptured. The Bureau was called in to render a decision as to the cause of the failure. Advice was also given pertaining to water supply, sewage disposal and control of slaughtering houses.

LEESBURG

The Bureau was consulted and called in for an investigation relative to the municipal water supply system. Following the investigation a report was prepared and submitted to the city council.

BRADENTOWN

The water supply of Bradentown possesses a very hard quality, also is very sulphurous. The hardness of the water and the occasional appearance of "black water" has been the cause of much adverse comment among the citizens of the town. A survey was made and at the present time material is being prepared to advise the council.

CHATTAHOOCHEE

For years the Florida Hospital for the Insane has been disposing of its sewage into a small stream passing near by its premises. During the summer numerous complaints were registered by the citizens of River Junction who were accustomed to do washings along the stream banks. An intensive survey of the situation was instituted and subsequently recommendations and plans were forwarded to the State Board of Public Institutions for consideration—plans to eliminate the existing nuisance.

MONTICELLO

During 1916 the Engineering Bureau made an intensive sanitary survey of conditions in Monticello, and later recommended that the city should install a municipal sewerage system. During 1917 activities were more marked and the Bureau was again called upon; this time to address a citizens' mass meeting relative to the sewerage proposition.

In a very brief manner, the specific details of the Engineering Bureau have been listed. In each of the above instances where necessary a detailed report was prepared and forwarded to the municipality.

During the past year there has been considerable activity in the remodeling and the reconstruction of privies throughout the State. This work has been promoted largely by the District Health Officers in the course of making their monthly or occasional rounds.

By degrees the fearful lesson of the open privy and the dirty fly, and their relation to the prevalence of intestinal infections is becoming realized and as a consequence people are more sympathetic to the work of the Health Officer. Soil pollution is one of the greatest problems confronting the South today and to combat it successfully means the remodeling and reconstruction of privies. An active, energetic campaign for privy reconstruction in Florida will net within a brief period, a fifty per cent. reduction in the typhoid fever death rate, as well as a great decrease in the mortality rate from other intestinal infections. Too great stress cannot be laid upon this particular branch of work.

WATER AND SEWAGE LABORATORY

The water and sewage laboratory has been exceedingly busy during the past year, the heaviest year ever known for such work, in the history of the Board. Unfortunately on September 1st, 1917, Mr. Arthur F. Shuey left the Board to take up work elsewhere. The people over the State are realizing the significance of water analytical work and consequently, during the twelve months just closing 1,606 examinations of water were made in the laboratory, which represents an average of 134 per month. Since September 1st the work has been handled by the Chief Engineer with stenographic aid.

A percentage of the water analyses are performed for railroads operating within the State for proper certification of water used in interstate traffic. These examinations are made

in accordance with a Federal law requiring same. Following are the analyses made for railroads and the number of each:

Atlantic Coast Line R. R.....	37
Seaboard Air Line Ry.....	28
Georgia, Florida & Alabama.....	4
Birmingham, Columbus & St. Andrews.....	1
Georgia, Florida & Southern.....	3
Live Oak, Perry & Gulf R. R.....	3
Clyde Line	2
Mallory Line	2
Charlotte Harbor & Northern.....	2
Oklawaha River Valley R. R.....	1
Madison Southern	1
Export Ry.	1
St. Petersburg Transportation Co.....	1

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In addition to the bacteriological examinations numerous detailed sanitary chemical analyses were conducted for the purpose of ascertaining specific data relative to given supplies. Often times a chemical examination would give data not to be obtained from the bacteriological examination.

A number of sewage analyses were also made to determine the operating efficiency of several sewage disposal plants. A detailed analysis of sewage before and after treatment contributes much enlightening information relative to the exact operating conditions of the installation. In many instances our sewage plants are not operating as designed and are not producing the required results. These points can be detected by a chemical analysis.

OFFICE AND DRAFTING ROOM

The office work has increased considerable during 1917. During the year 1,058 inquiries were answered relative to public health engineering—an average of 88 per month. These inquiries were divided as follows: Twenty-one per cent. relative to sewerage and sewage disposal, 60 per cent. relative to water supply, and the remaining 19 per cent. relative to refuse collection, plumbing and miscellaneous matter.

In addition to the number of replies to inquiries many blue print plans were prepared and distributed throughout the

State. Notably, several hundred plans of privies and sewage disposal plants were given out upon request.

As time passes the great amount and scope of work lying before the Bureau of Engineering begins to manifest itself. These are days when every ounce of energy and strength must be devoted in one way or another, to the winning of the war. It is imperative that the public health of the community should be conserved and bettered in order to maintain a high order of efficiency at home.

REPORT OF DR. E. VAN HOOD

OCALA, FLA., December 31, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

MY DEAR DOCTOR:

Herewith is submitted a report of six months' work at the Hospital for Crippled Children, now located at Ocala, Florida. Your Superintendent has been aggressively active in this work in that the school teachers of Florida have been made interested. As a method, it was suggested that a talk to school teachers at the monthly or annual meeting would be the best way. So a "statement" was prepared and delivered to a body of several hundred members of The Florida Educational Association at Daytona, Florida, on December 28th, 1917. The School Room published the "statement," which was as follows:

A "STATEMENT"

Madam President and Teachers of Florida Educational Association:

I represent the Hospital for Crippled Children, located at Ocala, and under the auspices of the Florida State Board of Health.

Why am I here? First, because Miss Nellie Stevens, the bright and progressive principal of the Ocala primary school, has said that the Florida teachers should have an opportunity of looking into this great work, and, because I, too, am a teacher and I want the co-operation of you teachers. I take a body, or a part of a body, that is defective and teach it how to use parts or members that would otherwise become atrophied from disuse. The treatment is indeed surgical, but the child must be taught how to use the limb after the latter has been straightened.

Why is the State Board of Health doing this? The answer is, as an investment. You ask how can that be? If \$100.00 to \$300.00 is expended in the treatment of a deformed or hunchbacked child at six years of age and a cure is effected, the Board says that is better than thirty (30) years of dependency, if not pauperism in the subsequent life of the cripple.

How many States are doing this work free? Just five besides Florida.

How to secure admission: Write to Dr. W. H. Cox, State Health Officer, Jacksonville, Florida. He is my chief and will furnish you with blanks and details.

Conditions for admission: Patient must be a child—white or colored—native of Florida, curable—non-contagious—responsible, indigent.

How many children are now in the Hospital? Only nine, but eleven more are being treated in the Outdoor Department, that is, they come to the office for attention. The Outdoor Department costs the State Board of Health practically nothing.

How many cripples of this description are in Florida? Something upward of three hundred (300):

How can teachers help? See the parents of the child and induce them to have the child cared for now while the little one's parts are plastic—tractable and like its mind, undeveloped, but susceptible to growth and improvement.

Being a new appointee to succeed Dr. R. F. Turck, who has joined the colors, it was thought expedient to say the least to lay a good "foundation." So with that object in view a circular letter was addressed to each doctor in Jacksonville, asking what understanding was there as to remuneration—if any—for assistance, etc., that they had rendered in a professional way in this State charity. The letters of response were very gratifying and it is a pleasure to hereby acknowledge it publicly. The doctors of Ocala were then approached and asked if they would aid in a reasonable way if called upon. The response was equally gratifying and it is to be noted that each one has been as good as his word.

It was recognized that a public interest in the Hospital for Crippled Children should be something more than sentiment in Ocala and community, so upon request ten automobiles with drivers were offered gratis to be used in taking the children to picnics, outings, Sunday school, on short notice.

Five local druggists agreed to do prescription work to the extent of one dollar per month. Thanks are hereby tendered Messrs. Gerig, Parish, Bitting, Tydings and Court Pharmacy. Messrs. McLucas, Perkins, Morrison and Hooper have put us under obligations by doing the tonsorial work free.

Miss Nellie Stevens has charge of the Educational Department and has furnished as teacher, Miss Frances Agnew, who gives half her time (three days in the week) to the children gratis until further notice. A popular subscription is now on foot to get her at least twelve dollars per month. An amount that will hardly cover her actual expenses. The school is not only satisfactory in the way of employment and in results, but has grown to be a necessity in the lives of the little shut-ins. Miss Byrd Wartmann makes regular visits and gives lessons in elementary drawing and kindred arts and is supplying that which all these children will need often in life. She also does this gratis. She has our thanks.

The freedom of Silver Springs—The Blue Grotto of America—has been tendered by Mr. Ed Carmichael, the owner, to the children and their attendants for picnics and bathing. Mr. Carmichael is big-hearted and this act is characteristic of him.

Dr. Harry Walters, who has done the X-ray work for the Hospital, has placed us under obligation for rates and extra service. Mr. W. H. Johnson has done all the photographic work and often it has been a burden to him. His free of all charge is appreciated. McIver & Mackay, Smith & Sanifer, H. Meadows and Mation Hardware Company, all have placed us under obligations. Miss Mary Marshall and her nurses have done all that any one could ask in caring for the little patients.

We thank both of our daily papers, the Banner and the Star, for what each one has done. The Star has been especially active and outspoken on many occasions for our welfare.

The children are in a new hospital, on a high hill with no buildings to intercept ventilation or view on three points of the compass. The vista takes in a valley farm which rises into a heavily timbered mountain a few miles away. The sanitation is practically perfect and on account of natural advantages can be easily kept so. Every child admitted has, without exception, improved in health.

In Dr. Turck's reports he emphasizes the many needs of the Hospital. When it is noted that Florida is one of six States that are doing this work free, it will be seen that it takes hard and long work to influence public sentiment in its favor, so we will have to bide our time, meanwhile as the appropriation for this work can be shown to be a real investment, the idea will and must succeed.

A writer who is in sympathy with us says:

"It is probable that the great international conflict into which we are now plunged will rightly and properly overshadow any great progress in the direction of children's hospitals, but we must, after all, build for the future, and we who spend our lives among these unfortunates, should be the ones to turn the spotlight of publicity on their helplessness and their crying needs."

Very respectfully,

E. VAN HOOD.

Report of cases successfully treated during the six months beginning June, 1917, and ending December 31st, 1917:

M. Arnow, No. 6, Hernia, right Obliq. Ing. Operated and cured.
 Robt. Arnow, No. 7, Hernia left Obliq. Ing. Operated and cured.
 W. Kinlaw, No. 8, Harelip. Operated and cured.
 L. Riggs, No. 12, One Clubfoot (tal. equ. var.) Operated and cured.
 P. Williams, No. 15, Hipjoint Disease, Plaster Jacket. Cured.
 H. Moon, No. 16, Hipjoint Disease. Plaster Jacket. Cured.
 L. Love, No. 5, Contracture hand and fingers. Operated and cured.
 A. Ray, No. 18, Double Clubfoot. Operated and cured. This patient cost the State nothing but the plaster.
 W. Nelson, No. 24, Double Clubfoot. Operated and cured. This patient cost the State only \$10.
 R. Washington, No. 23, Double Clubfoot. Operated and cured. This patient cost the State only \$10.
 J. Weatherby, No. , Etrangled Hernia. Taxis—reduced. This patient cost the State nothing. He came in hospital three months later and "paid his way," costing the State nothing. A Bassini was done—successfully—but can not be included in this report.
 I. Hammock, No. 20, Applied braces, etc. Treatment cured.

You will see by the above that twelve (12) otherwise incurable children (three possible exceptions), have been cured and returned to their parents.

Below is a summary of general work for the six months. Four patients appear in both lists:

Subperiosteal Exsection of Tibia—Two cases.
 Plaster of Paris Jackets—Eight times.
 Plaster casts to limbs, etc.—Fourteen times.
 Curetments for necrosis, etc.—Four times.
 Nernia treated by pad and strap—One case.
 Circumcision operation—Three cases.
 Abscesses hip spine incised drain—Five cases.
 Amputation supernumerary fingers—Two fingers.
 Bradford Whitman frams fitted—Two patients.
 Thomas Splints made and fitted—Two patients.
 Buck's Extension Apparatus applied—Four patients.
 Ordered Braces and applied them—Six patients.

Admitted to Hospital, white.....	17
Admitted to Hospital, colored.....	3
Treated in Outdoor Department.....	11
Whole number for six months.....	31
Number cured	12
Number under treatment now.....	19
No deaths.	

As "an investment" the Hospital for Crippled Children has returned twelve children to their homes cured. Estimating the value at \$5,000 each, the gross income is \$60,000 to the State for the past six months.

REPORT OF ORTHOPEDIC DEPARTMENT—STATE BOARD OF HEALTH

A Six Months' Report—Year Ending December 31, 1917.

NAMES	In Marion County Hospital (white) June 21, 1917.	In Marion County Hospital (colored) June 21, 1917	Outside Treatment June 2, 1917	Applications Received, 1917	Admitted Marion County Hospital (white) in 1917	Admitted Marion County Hospital (colored) in 1917	Admitted for Office Treatment	Examined, Not Admitted	Total Cases during latter half year ending 12-31-'17	Special Treatment, Plaster Work, Operating, etc.	Date Discharge and Condition	Diagnosis	Under Treatment December 31, 1917
H. M.	1								1	Brad Spl. Plas. Jkt.	.....	Potts & Hip Abscess.	1
A. T.	1								1	Sub. peros Excls. Tib Thomas Splint	.....	Osteo Myelit Tibia Right.	1
P. W.	1								1	Plaster Jkt.	Cured 12-16-17	Hip Joint Dis. T. B.?	
M. M.	1								1	Elec. Massage.	Improv. 11-17-17	In Spi Par Entire Leg.	
M. M.	1								1	Drain	Improv. 11-12-17	Os. Myelit Ilem and hip.	
R. W.	1								1	Braces-Massage	Improv. 11-10-17	Spas. Par. Sp., Spin. Curv.	
L. L.									1	Plas. Oper on Tendon.	Cured 8-8-17	Contrac. arm, Ancient burn hand and wrist	
R. H.									1	Subperios Excls Tib	.....	Osteo Myel. after Typhoid Fever.	1
J. M.									1	Sedatives	.....	Spastic Par Epilepsy.	1
L. H.									1	Braces, Elec. Massage.	Improv. 11-10-17	Inf. Spin. Paral.?	
A. R.									1	Tenoplosly and Plas. Casts.	.....	Tal. Eq. Varus, both feet.	
L. R.									1	Elec. Mass., Musc. Training	.....	Inf. Sp. Par., both legs	
R. Y.									1	Massage Gymnastics	.....	Extreme Rickets	
M. G.									1	Circumcis Braces Massage.	Cured 9-20-17	Phimosis Genu-Valgum Double.	
M. A.									1	Bassini Operation	Cured 9-25-17	Obliq. Ing. Hernia Congen.	
R. A.									1	Bassini Operation	Cured 9-25-17	Obliq. Ing. Hernia Double.	
A. R.									1	Nothing	Not Imp.	Spin. Curative Inf. Spin. Paral.	

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C. M.				1					1	Nothing	Not Imp.	Defective development mind & body	
L. M.				1					1	Nothing	Not Imp.	Phthisis Bulbi Smallpox pust in eye.	
K. C.				1					1	Operation	Cured 11-8-17	Hare lip	
H. H.				1					1	Manipulation	Genu Varus, both knees	
E. H.				1					1	Beugies	Strict. of Oesophags.	
R. W.				1					1	Tenotomy and Plast. Casts.	Cured 12-16-17	Tal. Ep. Varus right foot spastic paral	
W. N.				1					1	Tenotomy Fasciotomy Plas. Casts.	Cured 11-16-17	Tal. Equ Varus, Double.	
L. R.				1					1	Tentomy Fasciotomy Plas. Casts	Tal. Equ, Varus Supernumerary	
E. M.				1					1	Amputation	Fingers	
C. M.				1					1	Buck' Ext.	Pott's Dis. Sp and Hip Left.	
T. H.				1					1	Brad. Fram. Plas. Jkt.	Pott's Dis. Sp.	
H. H.				1					1	Braces	Genu-valgus, Double	
M. H.				1					1	Plast. Cast	Pott's Dis. Sp. and hip Abscess.	
W. O.				1					1	Nothing	Spinal Curv. Inf. Sp. Par.	
L. T.				1					1	Plast. Cast, Curetting.	Spina-bifida Tal. Eq. Varus. Perforating ulcer of foot.	
Total	6	11	25	25	8	8	8	4	31				16

RAYMOND HEWETT,

Aged 16, August—Osteo myelit. Tibia. Von Pirquet positive. Low state of health, having had typhoid(?) fever in the past twelve months. Removed tibia by subperiosteal excision, taking out en masse eight inches of the bone. After five months irregular suppuration of parts during which time small places needed curetting for necrosis four times. X-ray picture shows that bone is reforming. General improvement in growth and health extraordinary.

ARTHUR THIGPEN,

Aged 16, June—Osteo Myelitis Tibia of eleven years standing. Has had at least five operations calling for anesthesia. Stayed two years in a hospital in Baltimore for treatment of tibia. Von Pirquet positive. Boy was first weighed and measured, and put on helio-therapy and general treatment for a few weeks. Improvement was slow. Then Subperiosteal excision by an original (rapid) method was done and the periosteum stitched together by separate line of stitches. Ten inches of the length of the tibia was removed. After a few weeks a Thomas splint was applied and boy allowed to go about on crutches. Curetting was necessary for small foci of necrosis at three different times since operation. All healed now. X-ray shows no bone in place of tibia. Am waiting for thorough healing of all local conditions before grafting bone or a transfer of fibula to place of absent tibia. Health and growth of patient extraordinary.

EDNA BAXLEY,

Aged 9, December—Osteomyelitis of Ileum with involvement of Hip-joint and contiguous structures. Two sinuses in back discharging freely. Much pain, emaciation and constitutional disturbance. Buck's extension and rest. The family physician had already done this at home and so had the case well under control. Improving nicely and continuously.

LEON LOVE,

Aged 9, August—Contracture of three fingers from ancient burn of wrist and hand. Teno-plasty, fasciotomy in palm and V shaped incisions in skin which allowed a rearrangement of palm coverings. These incisions were then brought together with fingers in extension and sutured. Result very good. It is much regretted that no photograph was taken of this case before operation but the fulsome praise of this grateful patient will convince any one of the great and satisfactory difference in his hand "before and after treatment."

MATHEW ARNOW,

Aged 6, September—Oblq. Ing. Hernia Congenital size of hen's egg. Bassini operation without displacing the cord. Patient put in plaster of Paris for three weeks. Result: Cured.

ROBERT ARNOW,

Aged 8, September—Large Oblique Ing. Hernia Congenital, with bubonocoele on opposite side. It was thought best to not operate on both Herniae so the larger was operated by Bassini method but leaving cord in place. Put in plaster of Paris for three weeks. Left hospital cured. Parties dissatisfied because bubonocoele was not operated upon. There are three boys in this family. All have Hernias.

MARION B. GOSS,

Aged 5, September—Referred by Dr. Gwinn, Jacksonville—Spastic Spinal Paral. Legs congenital with knockknee. Right limb inverted and adducted.

Applied braces and parents given some instruction in muscle education. Boy is circumcised; treated in Out-door Department. Improving slowly.

MALCOM MORGAN,

Aged 7, June—Talipes varus with paralysis of Extensors of leg and thigh. A "flail leg." He had had some operation done on the Peroneal tendons to judge by the scar but he was not able to abduct foot so it is likely that the operation failed of its purpose. Is sent to Out-door Department, with a brace and later it may be advisable to do an arthrodesis of ankle or knee or possibly a tendon transplantation.

PARK WILLIAMS,

Aged 4, June—Hip-joint disease for over eighteen months, and had a plaster cast applied. At present the cast is in pieces and not doing much good. Cast removed and boy put to bed and carefully watched for two days when a new cast is applied. Boy improved rapidly. Cured after five months.

HAROLD MOON,

Aged 8—Osteo Myelitis Hip joint, Ileum and contiguous structures. A conservative operation had been done by my predecessor, Dr. Knox, of Jacksonville. An open sinus indicates some diseased bone below. Removed several pieces at different times in the next four months, when he left the hospital practically well, though the thigh is slightly adducted, flexed, inverted and shortened. A subsequent operation to correct this moderate deformity is discussed with parents who are told to regard the boy as being in the Outdoor Department and to send him to the office regularly.

RUTH WALKER,

Aged 16, June—Spastic Spinal Paral. Congenital. Also has serious defect of vision. Limbs all are irregularly shaped and more or less mis-shapen by contracture (tendonous and other). Has had several operations for the deformities during time she was in St. Luke's hospital—about two years. She was taught to walk while there by means of education and braces. Is discharged in a better condition than when she began treatment—so the parents say. She was kept at Ocala a few weeks and then told to go in the Out-door Department and call at office for any service that was needed.

EDITH HILL,

Aged 4, October—(Colored)—Stricture of Oesophagus from swallowing potash. At first a filiform was passed, and the child lived on sweetened water because unable to take even soup. Now a conical bulb of No. 30 French passes easily and improvement is progressive.

ROSA WASHINGTON,

Aged 7, October—(Colored)—Referred by Dr. W. H. Cox, Jacksonville. Talipes equino varus from causes that parents were unable to give. Patient also had a Spastic paralysis of some of muscles of forearm—right. No spasticity in foot. Tenotomy of tendo Achilles. Some fasciotomy and forcible correction followed by plaster of Paris dressing. Cured of Talipes.

NELSON WILLARD,

Aged 8, December—(Colored)—Referred by Dr. S. H. Blitch, Blitchton, Fla. Talipes Equino varus double congenital. General health bad. Tendo Achilles was lengthened. Other tendons and fascia were cut in sole of foot and forcible correction made. Plaster casts applied to both feet. Result perfect.

OUTDOOR DEPARTMENT FOR SIX MONTH

ALTON RAY

Aged 6, August—Talipes equino varus congenital in both feet. Had been operated elsewhere with unsatisfactory results. Did a tenotomy of tendo Achilles, of Posterior Tibial also of Flexor long. Pollicis. Some fasciotomy of sole of foot was done and then forcible correction of deformity followed by application of plaster of Paris. Both feet were treated. Several operations were done, plaster being applied each time. The boy now walks squarely on the sole of his foot though there is some "pigeon toe" which could be easily corrected if the parents would co-operate. There is hope that the child will allow this work to be completed while its bones are still pliable. He has cost the State nothing but the plaster of Paris. See photo.

THOMAS HOWZE,

Aged 5, October—Knock-knees. Not congenital. Is examined closely for Rickets and have applied braces to correct the "knee in." Improving.

LILLY MATHEWS,

Aged 10, October—(Colored)—Phthisis Bulbi left from a smallpox pustule on eyeball some months ago. Gave medical treatment and instructed to report again.

BERRY CLAYTON,

Aged 18, October—(Colored)—Tachicardia, amnesic aphasia. Is told that he may get a free examination by Dr. Randolph in Jacksonville for possible mental defects.

MILDRED HINES,

Aged 5, October—Hip joint disease right with suppuration and necrosis. Health fair. Applied plaster of Paris cast with fenestra for drains to come to surface. Improving in every way.

JANE MOORE,

Aged 9, December—(Colored)—Spastic Paralysis and Epiuepsy. Medical treatment. No much improvement yet.

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Aged 25, December—Scoliosis from Inf. Spin. Paral. several years ago. Advised to do suspension exercises and report as often as desired for advice.

RANDALL YORK,

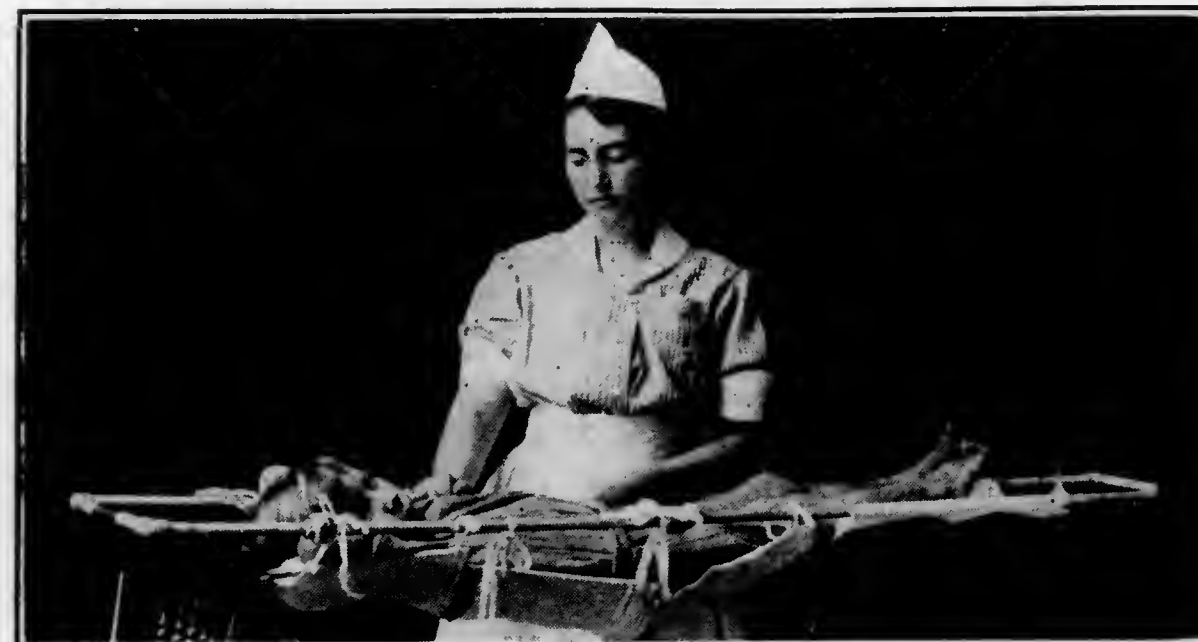
Aged 16, December—Rickets general. Relaxed ligaments and mis-shapen bones and joints show up in almost every part of the boy. General health fair. Is put upon hygienic and gymnastic treatment.

LULA RANDALL,

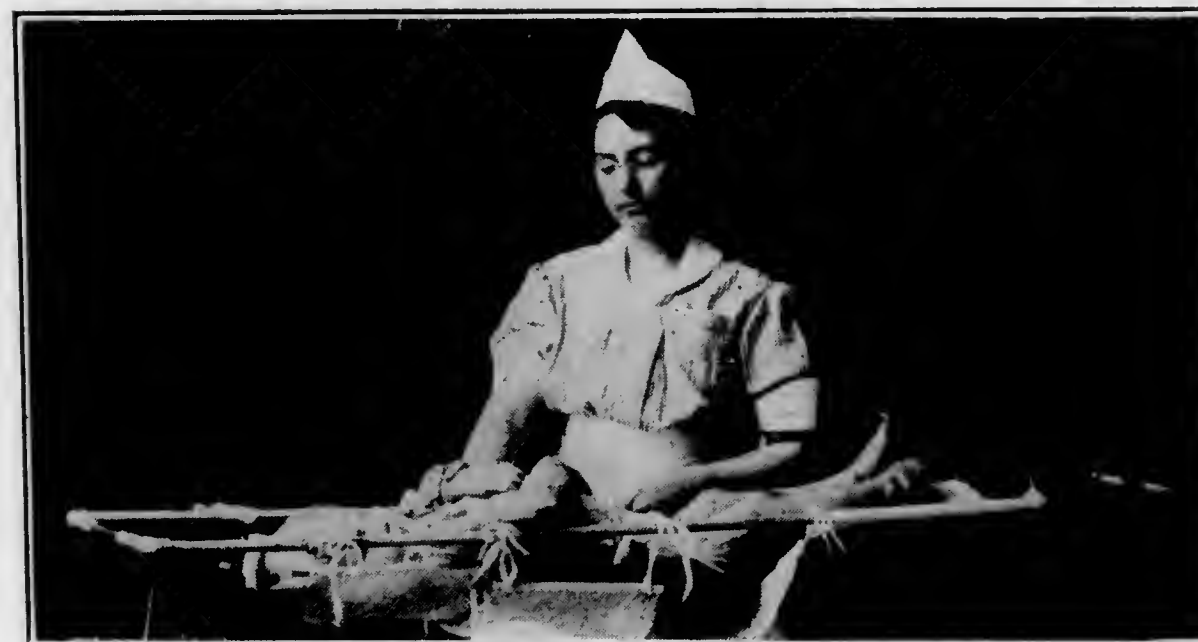
Aged 9, August—Talipes varus right foot and paralysis of other muscles in leg and thigh, plus hookworm. Had Inf. Spin. Par. at five years of age and later had a serious injury to "good" leg which compelled the child to use the paralyzed limb more than she otherwise would. It was interesting to note the continued improvement of the defective muscles. She is still using electricity and massage with muscle training, and special attention given to shoe soles and heels.

LOUISE HAMMACK,

Aged 8, August—Talipes from Paralysis of Extensor Communis Digitorum following Inf. Spin. Par. five years ago. Electric massage and muscle training for four months, then braces to hold feet in extension and valgus. Dismissed much improved.



Bradford-Whitman Frame—Patient is slung in four separate little hammocks. Any one of the four may be loosed, tightened or dropped entirely as in Picture No. 2, so that the urinal or bedpan may be used. Used on C. G. Malony and H. Mizell.



Bradford-Whitman Frame Hammock, dropped so that bedpan may be used. Used on C. G. Malony and H. Mizell.

Pott's Disease. Braword Splint for four months and then plaster jacket is curing them. Improving in every way for three months.

Aged 6, June—Abscess of Hip and Spine with history of fever and discharge of abscess. When admitted he had temperature of 104 with much pain on the slightest movement of body or on trying to move any of his limbs. For the next six months his treatment may be summed up in the words Bradford-Whitman Frame for four months, during which time many abscesses appeared, and all treated coservatively until suppuration ceased and then applied plaster jacket. He gradually regained his health and for three months it has been almost perfect as to growth, appetite, sleep, spirits and ability to do for himself. Still under treatment. See photo.



C. G. MALONEY H. MIZELL

OUTDOOR DEPARTMENT FOR SIX MONTH

ALTON RAY

Aged 6, August—Talipes equino varus congenital in both feet. Had been operated elsewhere with unsatisfactory results. Did a tenotomy of tendo Achilles, of Posterior Tibial also of Flexor long. Pollicis. Some fasciotomy of sole of foot was done and then forcible correction of deformity followed by application of plaster of Paris. Both feet were treated. Several operations were done, plaster being applied each time. The boy now walks squarely on the sole of his foot though there is some "pigeon toe" which could be easily corrected if the parents would co-operate. There is hope that the child will allow this work to be completed while its bones are still pliable. He has cost the State nothing but the plaster of Paris. See photo.

THOMAS HOWZE,

Aged 5, October—Knock-knees. Not congenital. Is examined closely for Rickets and have applied braces to correct the "knee in." Improving.

LILLY MATHEWS,

Aged 10, October—(Colored)—Phthisis Bulbi left from a smallpox pustule on eyeball some months ago. Gave medical treatment and instructed to report again.

BERRY CLAYTON,

Aged 18, October—(Colored)—Tachicardia, amnesic aphasia. Is told that he may get a free examination by Dr. Randolph in Jacksonville for possible mental defects.

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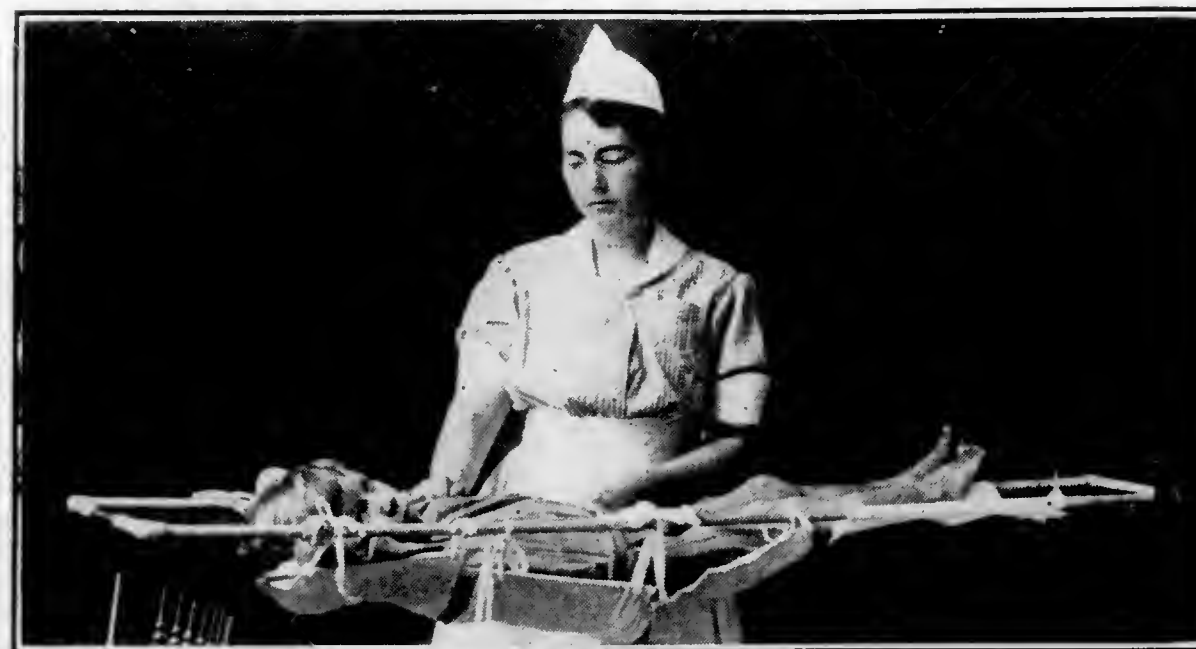
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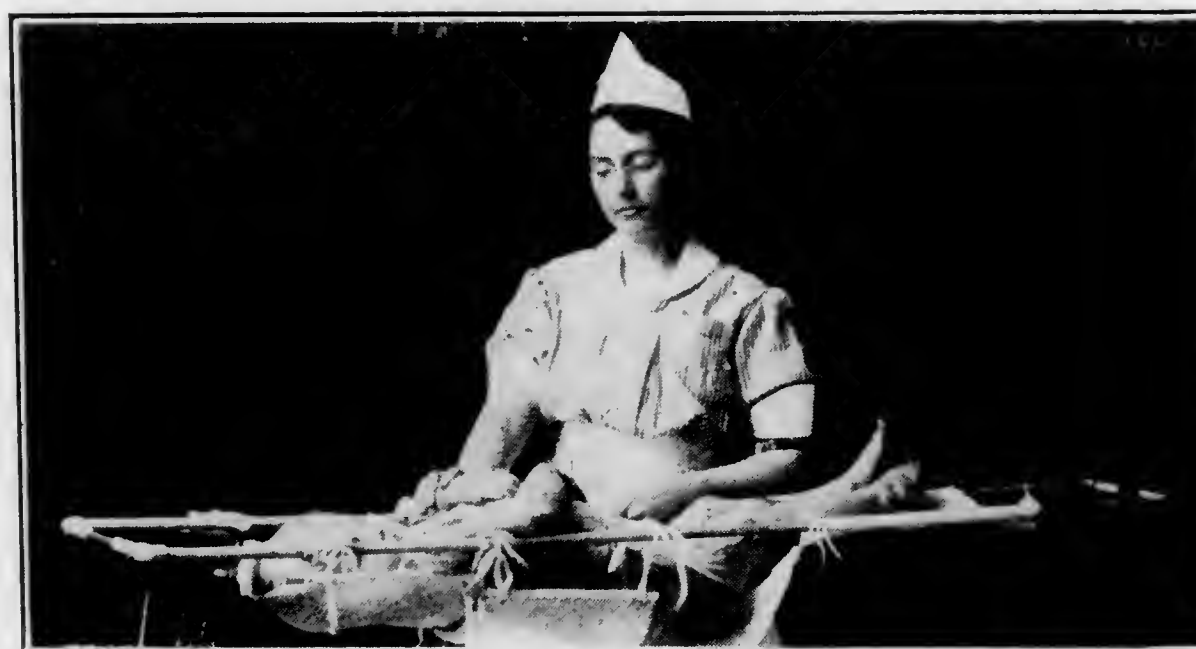
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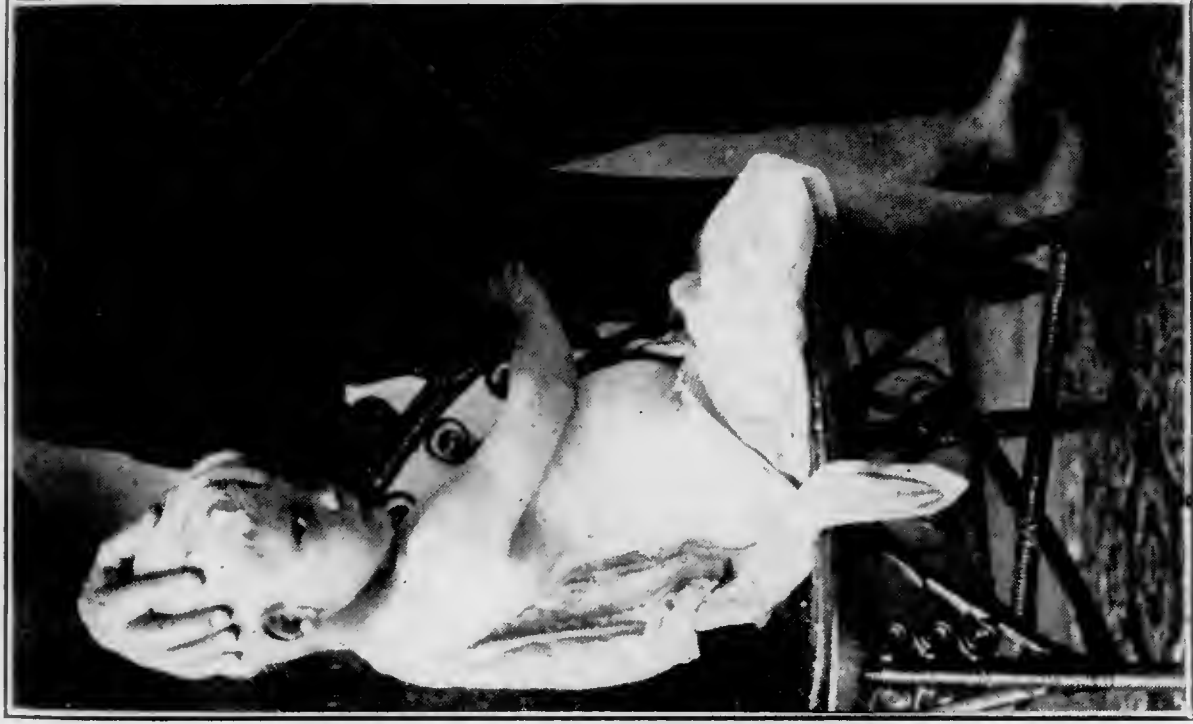


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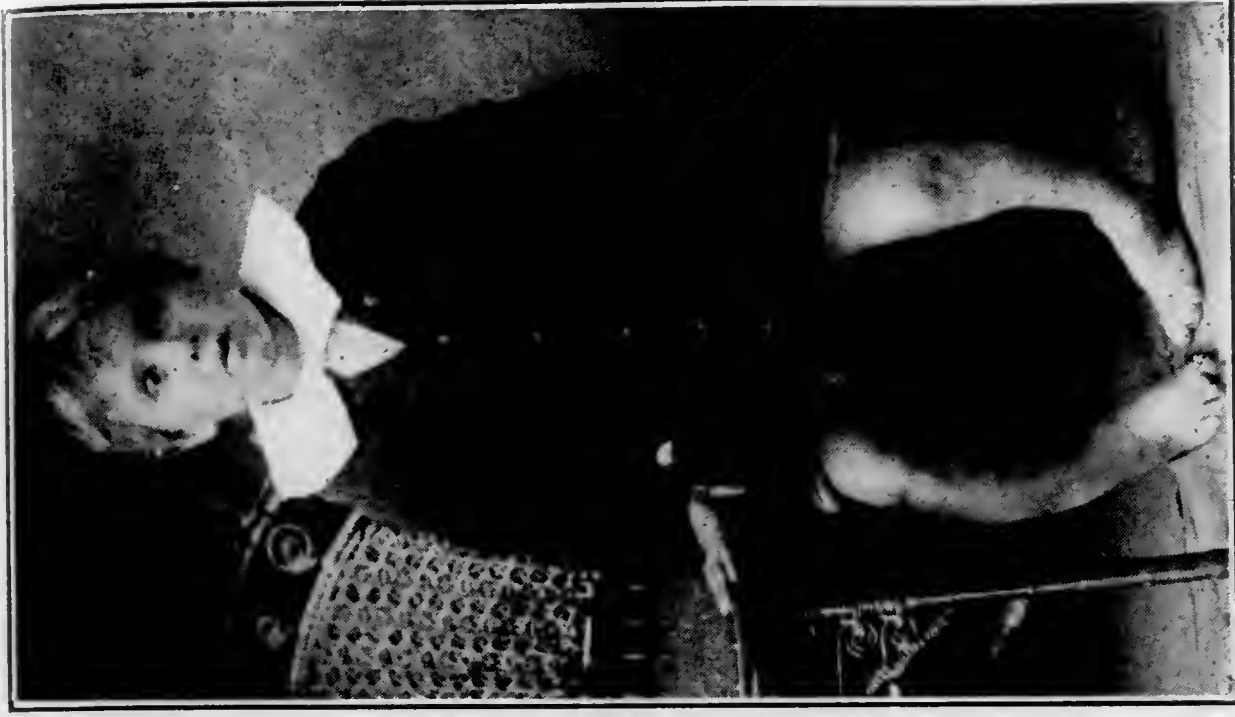
C. G. MALONEY H. MIZELL



ARTHUR RANDALL
Scoliosis—Infantile Spinal Paralysis
Aged 15, September—Has Scoliosis to right in dorsal region. Inf. Spin. Par. four years ago. Advised daily manipulation during extension of body from trapeze. Is improving. Nearly all this deformity could have been prevented had the boy had early and proper treatment. See photo.



CLIFFORD MALONEY
Pott's Dis. Spine—3d Lumbar Vertebra in Kyphos
Aged 6—Pott's Dis. Spine—3d. lumbar vertebra at which point a sharp kyphos shows. A lordosis coexists but it is not pathologic. Child suffered awfully night and day and had severe constitutional disturbance. Placed in Bradford-Whitman splint for a few weeks and then plaster jacket. Growth has been continuous. See photo.



HARVEY CAREY
Under Treatment; Will be O. K. in Time
Aged 6—Bowlegs, plus hookworm infection. Many sores on feet, also on legs. Refused operation but wanted braces. The general health of boy along with local inflammatory processes would have made it bad risk for operation at present anyhow, so the brace treatment was willingly adopted. Patient getting along very well. See photo.



LOIS TOOKE
Showing Perforating Ulcers of Five Months
The Holes Goes Through the Foot



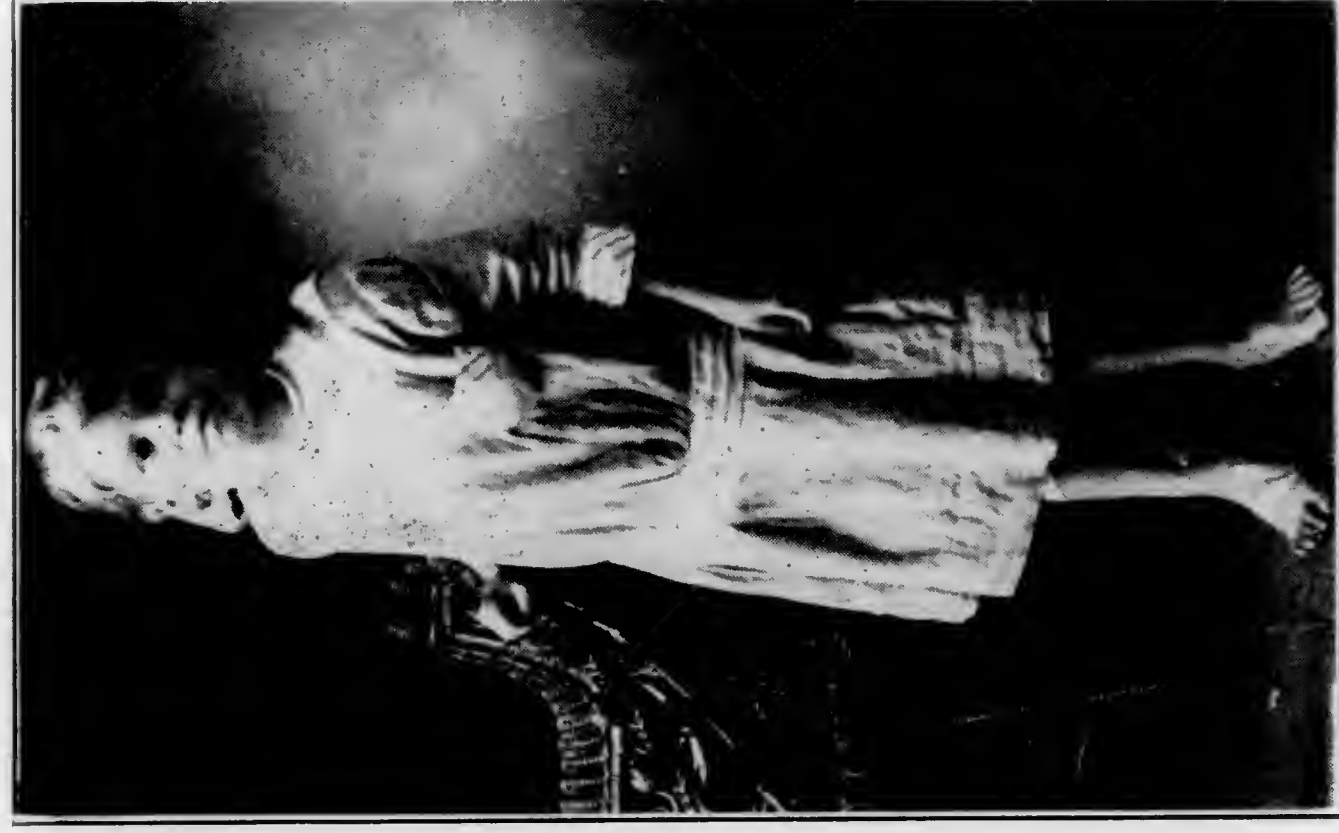
LOIS TOOKE
Talipes Equino Varus; Spina Bifida; Left Perforating
Ulcer Foot. Under Treatment

Aged 5, November—Spina Bifida Occulta (?) with Talipes equino varus, also a Perforating Ulcer beneath fifth metacarpal with offensive discharge. Ulcer of five months' standing. The other conditions are congenital. The whole left limb is smaller than the right. X-ray showed necrosis of metacarpal bone at site of Perforating Ulcer. The treatment is very conservative. The ulcer being in the center of a "corn" on which the child walks without pain forces one to the conclusion that this disease is of trophic origin and probably influenced by the Spina Bifida. The "corn" is treated antiseptically and poultices soon took off the corn. The Talipes is kept in plaster cast so that the patient is kept off the "corn," as the foot is maintained in valgus position. Is still under treatment but in Outdoor Department. See photo.



LENA RIGGS—Before Operation

Aged 9, December—Referred by Dr. J. M. Irwin, Crystal River—Tal. Equino-
varus Congenital, plus hookworm. Tenoplasty of tendo Achillis, fascio-
tomy, forcible correction and then plaster cast. Cured. See photo.



LENA RIGGS—After Operation



WALDO KINLOW, Harelip—Before Operation



WALDO KINLOW—After Operation

REPORT OF DR. B. L. ARMS
Chief Bacteriologist

JACKSONVILLE, FLA., February 6, 1918.

DR. W. H. COX,
State Health Officer,
Jacksonville, Fla.

DEAR DOCTOR:

I have the honor to submit the following report of the work of the Central Laboratory and the reports of the Directors of the Branch Laboratories of the State Board of Health.

The following changes in the personnel have occurred in the Central Laboratory: August 1st, Mr. H. D. Venters was transferred to Tampa to assume the directorship of the Laboratory and Dr. C. P. Fryer was secured to fill the vacancy. Dr. E. G. Birge, joined the Army Medical Reserve Corps with the rank of captain, leaving August 10th for Ft. Oglethorpe, Ga., the writer becoming Director of the Bureau of Laboratories August 1st. October 1st Miss Pearl Griffith, for the past four years stenographer at the Laboratory, and who had become familiar with the diagnostic work by making good use of odd moments, was transferred to the diagnostic force, and Miss Marie Richards succeeded her as stenographer.

During the months of August and September we were without the services of the media man, Mr. E. T. Copp, who joined the colors but was given an honorable discharge the last of September, on account of permanent physical disability.

TABLE No. I.
COMPARATIVE TABLE SHOWING NUMBER AND KIND OF EXAMINATIONS

1903-1917																
	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	Total
Diphtheria	216	319	265	563	415	547	444	716	1231	1747	5191	3646	7871	5880	3056	32107
Tuberculosis	280	564	790	842	775	895	1007	1515	2241	1325	1671	1672	1575	1766	1695	18613
Malaria	115	210	348	193	251	485	1675	2529	5224	2058	2329	2325	2278	2314	2460	24794
Typhoid	244	645	819	624	1081	971	1320	1948	5072	1438	1656	2212	2175	2406	2552	25163
Feces .....	...	...	...	...	...	278	668	7403	5898	3150	2384	3145	1901	2459	2953	30239
Gonorrhoea, (Smears).	53	128	171	197	180	251	340	605	836	399	437	671	750	975	1046	7089
Gonorrhoea, (Comple-	...	...	...	...	...	...	...	...	...	...	...	...	...	92	119	211
ment Fixation) .....	...	...	...	...	...	...	...	...	...	...	...	...	...	2667	4003	6670
Syphilis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	107	112	971
Rabies .....	...	...	...	10	8	36	68	53	170	139	119	82	67	472	235	5652
Miscellaneous	44	52	104	154	249	227	10	404	990	625	519	474	1093	98	...	534
Pathological Tissue...	...	...	...	...	...	...	...	...	...	105	99	117	98	115	...	2776
Water .....	...	...	...	...	...	...	...	...	...	20	111	249	1900	496	...	...
Total	952	1918	2497	2583	2959	3690	5532	15173	21662	11006	14516	14593	19708	19749	18231	154769

*—Since August, 1916, all examinations of pathological tissue have been made in the Miami Laboratory.

**—All water examinations are now made by the Bureau of Engineering.

TABLE II.
DIPHTHERIA

Positive Cultures	304	10.4%
Negative Cultures	2600	89.4%
Doubtful Cultures	5	
	2909	

Reference to the statement of specimens examined shows more examinations but as the culture is examined from each swab a separate number is no longer given even though the swabs are examined, nor does the number of swabs noted as examined in September and October show the number of swabs that were examined during those months.

TABLE III.
TUBERCULOSIS

Positive	390	23%
Negative	1275	75%
Unsatisfactory	30	2%
	1695	

The number of examinations for this disease should be many times greater than they are.

Outfits for the collection of sputum are sent any physician on request and a report is sent as soon as a thorough examination can be made.

TABLE IV.
TYPHOID

Positive	327	13%
Negative	1982	78%
Incomplete	220	9%
	2529	

In addition to the above, twenty-three bloods were examined for para-typhoid, all being negative.

The large number of incomplete reactions is accounted for by the fact that many bloods are sent in the early stages of the disease before sufficient agglutinins have developed to give a complete reaction.

TABLE V.
MALARIA

Positive	121	5%
Negative	2295	93%
Unsatisfactory	44	2%
	<hr/> 2460	

Of the positives twenty-eight were of the aestivo-autumnal type, one quartan, fifty-nine tertian and the type of the other thirty-three was undetermined, but it is safe to say a great portion of them were aestivo-autumnal but as only rings could be found they were not classified.

A great many bloods were sent for examination after the administration of quinine which, of course, precludes the possibility of finding the parasites. Many smears are sent in such a way that a satisfactory examination is impossible, the most common error being that the slides are put together wet. Slides should always be dried in the air, then placed back to back.

TABLE VI.
INTESTINAL PARASITES

Positive Hookworm	830	28. + %
Positive other parasites	98	3. + %
Negative	2017	68. + %
Unfit for examination	8	
	<hr/> 2953	

That this is far too small a number of feces examinations is borne out by the fact that of three hundred and fifty specimens sent from members of the Florida troops when they were brought here last summer, forty-three per cent. contained hook-worm ova. This percentage of infection being found in the strong young manhood of the State certainly indicates that much needs to be done to eradicate the disease in the sections from which they came.

TABLE VII—*a*
GONORRHOEA

Positive	356	34%
Negative	660	63%
Doubtful	30	3%
	<hr/> 1046	

There has been but a slight change in the number of smear examinations for this condition or in the percentage of positives during the past year.

TABLE VII.—*b*
COMPLEMENT FIXATION FOR GONORRHOEA

Positive	26	22. %
Negative	86	72. %
Anti-complementary	4	3.4%
Unsatisfactory	3	2.5%
	<hr/> 119	

This test has not been requested as often as it should have been, there having been but twenty-seven more tests made than in 1916.

TABLE VIII.
SYPHILIS

Positive	1324	33. %
Negative	2267	56. %
Doubtful	37	0.9%
Anti-complementary	245	6. %
Unsatisfactory	130	3. %
	<hr/> 4003	

The number of these examinations have increased about fifty per cent. during the past year and the results show that the number should constantly increase. This laboratory has since November 1st used both a cholesterinized antigen at 37 degrees C. and a plain alcoholic antigen at 8 degrees C. and the report is made on both antigens. As we have very few data blanks filled out by the physicians it is absolutely impossible for the laboratory to interpret results, hence the interpretation is left to the physician, giving him all we are able to learn from the blood.

Since August 1st the bloods have been run twice a week—Tuesday and Friday.

The doubtful bloods are those in which the results from the antigens were one positive and the other negative. In these cases we request another specimen.

While the percentage of positive findings is no indication

of the percentage of incidence it does show that a much more general use should be made of the test. The people should understand that both syphilis and gonorrhoea are infectious diseases, dangerous to the public health, and should insist on the complete reporting of both these diseases. The time must soon come when it will be recognized that thorough treatment for syphilis must not only be insisted on by the State but in many instances supplied and administered by the State.

TABLE IX.
RABIES

Positive	65	58%
Negative	40	36%
Unsatisfactory	7	6%
	112	

Of the heads submitted ninety-three were from dogs, twelve from cats, five from cattle and two from mules. Of the positives fifty-nine were dogs, three cats and three cattle. The unsatisfactory heads were either shipped in such a way that they were decomposed on receipt, or the brains were destroyed when the animals were killed.

If possible any animal suspected of being rabid should be confined and if it is a case of rabies the animal will be dead within a very few days. The only excuse for killing a suspected case of rabies is when a stray animal, usually a dog, has the furious form of the disease and is making a run about the country biting whatever is in his path. In this instance killing is justifiable.

Respectfully submitted,
B. L. ARMS,
Chief Bacteriologist.

STATEMENT OF SPECIMENS EXAMINED
IN THE CENTRAL LABORATORY, JACKSONVILLE, FLORIDA, 1917

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Intestinal Parasites:														
Hookworm:														
Positive	86	51	37	62	63	56	89	211	57	41	29	48	830	
Negative	196	141	125	126	131	144	147	390	233	158	98	101	1990	
Unft	4	...	...	...	1	1	...	1	...	...	...	1	8	
Amoeba:														
Positive .....	...	...	...	1	1	...	...	...	...	...	1	...	3	
Negative	5	1	5	4	2	2	...	4	1	...	2	1	27	
Ascaris	6	3	2	2	1	4	3	2	1	4	...	2	30	
Lamblia Intestinalis ..	...	2	1	1	...	...	...	...	...	...	...	...	4	
Oxyuris	1	2	1	...	3	2	2	...	...	...	...	...	11	
Strongyloides .....	...	...	2	...	2	...	2	...	...	...	...	3	4	
Tapeworm	2	5	1	...	2	3	2	1	2	3	...	...	24	
Trichuris	8	1	1	4	...	1	3	2	2	...	...	...	22	2,953
Diphtheria: Swabs:														
Positive	2	2	...	1	1	2	4	3	3	...	...	...	18	
Negative	28	19	16	15	6	9	14	10	6	5	...	...	128	
Doubtful .....	...	...	1	...	...	...	...	...	...	...	...	...	1	
Cultures:														
Positive	25	25	8	24	28	5	9	14	20	62	49	35	304	
Negative	197	184	221	152	148	88	39	62	80	374	704	351	2,600	
Doubtful .....	...	...	1	...	...	...	...	1	1	...	1	1	5	3,056
Gonorrhoea:														
Positive	24	26	27	21	19	14	20	50	32	32	43	48	356	
Negative	77	55	65	62	44	61	49	59	50	46	53	39	660	
Doubtful	1	1	1	4	3	2	5	2	3	6	...	2	30	1,046
Malaria:														
Positive	4	3	2	5	9	8	12	21	20	13	15	9	121	
Negative	164	115	138	168	193	208	232	308	267	254	136	112	2,295	
Unsatisfactory	1	6	5	1	7	2	6	3	2	1	5	5	44	2,460
Rabies:														
Dogs: Positive	3	10	8	4	4	4	2	7	6	4	2	5	59	
Negative	4	3	5	2	4	2	2	1	2	...	2	2	29	
Doubtful .....	...	...	...	...	1	...	...	2	...	...	...	...	5	

STATEMENT OF SPECIMENS EXAMINED—Continued
IN THE CENTRAL LABORATORY, JACKSONVILLE, FLORIDA, 1917

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Cats: Positive.....	1	1	1	3	112
Negative.....	1	...	...	...	1	1	1	...	...	...	...	1	7
Unsatisfactory.....	...	...	...	...	...	...	...	...	...	...	...	...	2
Cows: Positive.....	1	1	1	3	1,695
Negative.....	...	...	...	...	2	...	...	...	...	...	...	...	2
Unsatisfactory.....	...	...	...	...	...	...	...	...	...	...	...	...	2
Mules: Negative.....	1	1	2	2,552
Tuberculosis:														
Positive.....	46	35	33	24	26	39	29	38	27	37	39	17	390	
Negative.....	166	120	132	113	93	92	82	93	77	96	92	119	1,275	4,003
Unsatisfactory.....	2	5	3	3	1	2	8	3	2	...	...	1	30
Typhoid:														
Positive.....	20	25	31	22	32	30	35	42	38	16	26	10	327	1,982
Negative.....	109	110	112	119	176	189	212	287	247	199	128	94	1,982	
Incomplete.....	8	11	16	10	13	39	27	34	36	14	2	10	220	
Para-Typhoid:														2,552
Negative.....	2	...	3	...	1	...	3	5	4	3	1	1	23	
Wassermann:														
Positive.....	116	78	157	90	112	69	100	139	125	125	176	37	1,324	2,267
Negative.....	213	206	378	204	299	173	162	133	126	126	113	134	2,267	
Doubtful.....	...	1	...	...	...	...	...	...	...	...	...	36	37
Anti-complementary.....	8	10	10	9	13	9	30	78	24	28	25	1	245	1,330
Unsatisfactory.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhoea Comple-	26	1	3	6	6	10	11	18	26	14	8	1	130	
ment Fixation:														119
Positive.....	1	...	6	3	4	...	1	1	1	7	1	1	26	
Negative.....	10	12	10	4	8	7	13	9	1	8	2	2	86	
Anti-complementary.....	1	1	2	4	235
Unsatisfactory.....	...	...	1	...	...	...	...	...	...	...	...	...	3
Miscellaneous.....	17	24	13	21	7	42	16	28	9	44	8	6	235	
Total.....	1,584	1,295	1,583	1,287	1,408	1,320	1,373	2,066	1,533	1,723	1,762	1,237	18,231	18,231

REPORT OF DR. F. A. BRINK
Bacteriologist

DR. B. L. ARMS, JACKSONVILLE, FLA., June 22, 1918.
Chief Bacteriologist,

DEAR DR. ARMS:

I herewith submit my annual report and hope that same will meet with your approval:

The small number of hookworm specimens examined signifies what has already been mentioned in the Health Notes, that the Laboratories are not being made the most of in the eradication of intestinal parasites.

This end of the State has been fairly free of diphtheria cases during the year gone by, if the number of positive specimens examined can be used as an index, and I think it can. The little outbreak in October and November was characterized by the persistence of the germs in the throats of many of the cases. This is reflected by the large number of release cultures.

Venereal infection fell off at the end of the year, probably because the red light district was closed.

The regularity with which the positive tuberculosis specimens are sent in is almost clock like, about eight a month, eighty to one hundred a year in this Laboratory, represents an enormous amount of suffering throughout the State, and all could be prevented.

The volume of work arriving at the Laboratory has remained at a fairly satisfactory height. More work could have been done but the aim has been to give each specimen careful consideration.

RECOMMENDATIONS

Our microscope here is the same one that was purchased at the time this Laboratory was opened, seven and a half years ago; it has been in constant use ever since and I would suggest that another be added to our equipment.

There are two rooms here, the floors of which are of a poor quality and should be repaired.

F. A. BRINK,
Bacteriologist.

FLORIDA STATE BOARD OF HEALTH—PENSACOLA LABORATORY
ANNUAL REPORT—1917

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Animal Parasites:														
Hookworm:														
Positive	18	9	12	8	14	14	12	22	8	4	10	20	151	
Negative	18	18	18	16	16	29	27	86	20	18	10	23	299	
Ameba:														
Coli Positive	1	1	...	...	1	1	1	...	...	...	...	...	5	
Ascaris Lumbricoides .....	...	...	...	...	...	...	...	1	...	...	...	...	1	
Balantidium Coli .....	...	...	...	...	...	1	...	...	...	2	...	1	7	
Strongyloides Int .....	...	1	...	...	...	1	...	...	...	...	1	1	5	
Tapeworm .....	...	1	...	...	...	...	2	...	1	1	...	...	13	
Trichocephalus Dispersus	2	...	1	3	...	3	...	...	1	...	...	1	1	488
Fly Larvae .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Swabs:														
Positive	3	...	...	1	1	2	...	1	1	11	10	2	32	
Negative	12	12	3	12	7	12	5	4	12	16	86	31	212	
Doubtful .....	...	...	...	...	...	...	...	...	...	1	...	...	1	
Cult. Positive	18	7	...	2	1	4	...	3	6	22	62	9	134	
Negative	14	17	4	13	7	18	7	3	21	21	98	81	304	
Doubtful .....	...	...	...	...	...	...	...	...	...	1	...	...	1	684
Gonorrhea:														
Positive	18	8	11	13	8	7	6	10	8	6	4	4	103	
Negative	50	39	35	35	21	13	17	14	10	10	10	12	266	
Doubtful or unft. ..	...	...	...	...	...	...	...	...	...	...	1	...	1	370

FLORIDA STATE BOARD OF HEALTH—PENSACOLA LABORATORY
ANNUAL REPORT—1917

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Malaria:														
Positive	2	1	1	2	2	7	4	14	12	25	10	3	83	
Negative	26	28	23	34	38	44	52	44	40	57	41	34	461	
Doubtful .....	...	...	...	...	...	...	...	1	...	...	...	1	2	546
Rabies:														
Dogs: Positive .....	...	1	...	...	4	...	1	...	1	...	...	...	7	
Negative .....	...	...	...	2	2	2	1	...	1	...	4	...	12	
Cows: Positive	1	...	...	...	...	...	...	...	...	...	...	...	1	20
Tuberculosis:														
Positive	5	8	8	5	6	7	7	7	8	8	7	6	82	
Negative	37	31	37	30	34	25	21	32	27	22	24	21	341	423
Typhoid:														
Widal Positive	1	1	2	5	8	2	7	3	8	5	4	4	50	
Negative	22	27	24	16	35	47	52	43	48	38	26	26	404	
Inc. ....	...	...	...	...	1	1	1	1	...	...	1	...	5	459
Water for B.:														
Coli Positive .....	...	...	...	1	...	4	...	2	...	1	...	...	8	
Negative	1	...	4	1	1	2	2	1	1	...	...	...	14	
Animal Inoculations:														
Blood Counts Diff. ...	5	5	...	8	6	3	7	6	2	8	4	...	56	
Plain	3	2	4	10	9	6	7	9	2	11	7	3	73	129
Urinary Analysis	1	3	2	2	4	3	3	6	1	...	...	...	24	
Milk Examinations	13	2	5	5	3	13	26	1	1	7	...	3	81	
Miscellaneous	1	1	2	1	3	6	2	2	4	...	1	...	21	
Total	272	223	198	227	235	279	274	317	243	295	425	286	3,274	

REPORT OF DR. HAROLD H. FOX
Bacteriologist

DR. W. H. COX, MIAMI, FLA., March 4, 1918.
State Health Officer,
Jacksonville, Fla.

DEAR DOCTOR COX,

In accordance with your request I am submitting herewith the following report of my work with the State Board of Health of Florida, for the year 1917:

This report relates to my activities as Bacteriologist at the Tallahassee Laboratory and later as Bacteriologist at the Miami Laboratory.

I regret that in my report for the Tallahassee Laboratory I am unable to give a tabulated outline showing the nature, number and source of specimens examined for the district supplying that Laboratory. The reason for this omission is that at the time I closed the Laboratory, in accordance with instructions sent me by the Executive Office, all supplies, records, etc., of the Tallahassee office were shipped to the Central Laboratory at Jacksonville. In the confusion incident to unpacking, and to changes in personnel of the staff at the Central Office, it seems that most of the records are not at present available.

TALLAHASSEE LABORATORY

Educative: As outlined in my report for 1916, a series of illustrated lectures on the following subjects was delivered to the students of the Florida State College for Women:

February 9, 1917—Malaria.
February 16, 1917—Hookworm.
February 22, 1917—Lecture dealing briefly with Oral Hygiene, Hookworm, Malaria, Living Conditions and Rural Schools to the Short Course Students.
February 23, 1917—Oral Hygiene; Rural Schools and Housing.
March 2, 1917—Trachoma.
March 9, 1917—Typhoid.
March 16, 1917—Tuberculosis.
March 23, 1917—Smallpox.
March 30, 1917—Yellow Fever.
April 6, 1917—Children's Diseases.
April 13, 1917—Milk.
April 28, 1917—Pellagra.

The lecture course at the College began February 9, and was concluded April 28. The lectures were at first optional, but were later made part of the curriculum. The slides were loaned from the Library of the United States Public Health Service, the only expense in connection with their use being the express charges on shipments of the slides.

I wish to express my deep appreciation of the interest taken in the lectures by the students, and of the co-operation rendered by Dr. Conradi, President of the College, which enabled the State Board of Health to present such a course of lectures on Public Health to so representative a body of the future citizens of the State.

In addition to the lectures at the College, the following talks and illustrated lectures were given as opportunity afforded:

March 17, 1917—Illustrated address at the Quincy Chautauqua, on "Tuberculosis, Typhoid, Malaria and Hookworm."
March 22, 1917—Lecture before the Ladies' Missionary Society of Tallahassee, on "Health."
March 30, 1917—Talk to Canning Club of Saxon Public School on Health topics.
April 4, 1917—Illustrated Lecture at Monticello, on "Malaria, Diphtheria, Smallpox, Typhoid and Hookworm." (This lecture given at the request of Dr. Brinson, City Health Officer, and the Women's Club).
April 5, 1917—Talk to the students of the Centerville Public School on health topics.
April 28, 1917—Illustrated address to the students of the Florida Industrial School, the subjects considered being, "Milk, Infectious Diseases and Baby Welfare."
May 8, 1917—Address before the Women's Club of Tallahassee on "The Relations Actual and Possible Existing between the Women's Club and the Health Officers of various Southern cities."

The attendance for all the lectures, including those given at the State College for Women, totaled 2,290, or an average attendance at each lecture of over 127. As the majority of the lectures were given at night, they did not conflict with the Laboratory work. Demonstrations of Bacteriological methods used in studying the conditions with which the lectures dealt, were, when feasible, given at the Laboratory. They were in all cases well attended, a most intelligent interest being

evinced by the students of the State College in public health work.

Bacteriological: The Laboratory work proper at Tallahassee continued to show a steady monthly increase in the number of specimens examined, and in the number of physicians, who sought the Laboratory as an aid, in the correct diagnosis of their cases.

As was the case in the preceding year, numerous instances occurred showing the invaluable aid afforded by the Laboratory in making such diagnoses. Several specimens sent to the Laboratory, diagnosed by the physicians submitting the specimens as typhoid, upon examination proved to be malaria. Other cases submitted for examination for malaria, exhibited certain differential changes in the blood picture, which made a presumptive diagnosis of *uncinaria* possible. Specimens of the feces were requested in these cases, and the presumptive diagnosis, in all cases but one, became a positive one. Of course with the proper diagnosis, appropriate treatment in these cases quickly effected a cure.

Numerous specimens were received from the Chattahoochee State Hospital for the Insane. The proximity of the Tallahassee Laboratory to that hospital, and the consequent early reports received on specimens submitted, made the Laboratory especially valuable to them.

Relations became so cordial and co-operation so sincere between the physicians and public served by the Laboratory and myself, that it was with extreme regret that I closed the Laboratory June 23d, "for the duration of the war," pursuant to orders issued by the State Health Officer.

I believe that when possible the State Board of Health should re-establish the Laboratory at Tallahassee.

The ability to make prompt reports on diseases affecting public health, determines largely the efficacy of a State Bacteriological Laboratory. A Laboratory situated at Tallahassee is particularly adapted to do this for the counties of Calhoun, Jackson, Gadsden, Liberty, Franklin, Leon, Wakulla, Jefferson, Madison, Taylor, Lafayette, embracing a population of approximately 160,000. Tallahassee in addition is a rail-

road center for this district, with lines radiating north, south, east and west. It is true that Laboratories are located at Pensacola and at Jacksonville, but they are so far removed from the central west portion of the State that their value for early diagnosis, which is especially important in such diseases as diphtheria, malaria and typhoid, is greatly minimized.

MIAMI LABORATORY

July 11, 1917, I assumed charge of the Miami Laboratory, succeeding Dr. Iva C. Youmans, who resigned to enter private practice. I enclose a tabulated record of the positive examinations made by this Laboratory for the years 1915, 1916 and 1917. This report is arranged to show: First, the number and variety of specimens reported, as positive for Miami proper, and second, the total number, variety and source by towns of positive specimens, examined by the Laboratory. You will note that the Miami Laboratory is showing a constant growth in the number of examinations made and that the year 1917 greatly exceeds the previous ones in this respect. I believe that this good showing will continue for the specimens sent to this Laboratory come from practically all the physicians of the district, and since the settlement of this part of the State is rapidly progressing the Laboratory work will necessarily undergo corresponding expansion, to keep pace with the growing population.

The pathological work for the State is now being entirely done here. I am of the opinion that this branch of the Laboratory work should have greater prominence than is now accorded it. The physicians of the State should know that this Laboratory is doing the pathological work. Many pathological specimens are sent to the other Laboratories—only to be shipped here—thus consuming considerable time; moreover, since so many physicians are not acquainted with the proper methods of packing and shipping such specimens, they are in a bad state of decomposition by the time they reach this Laboratory, after having been shipped to other Laboratories, and the tissue elements are therefore worthless for examination.

At present Miami is availing herself of the Laboratory services to secure sanitary analyses of her milk and water supplies. In consideration for this work the city is meeting, in part, the expenses of the Laboratory. The union of the city and the State Board of Health, in the Laboratory, makes for better co-operation between the respective Boards, and furnishes a means whereby the City Board of Health may keep close check on the presence of new cases of diseases, reported positive, by examination at the Laboratory.

The Laboratory is fairly well equipped to carry on the routine examinations. More modern apparatus for making pathological examinations should be provided, however, and also the necessary equipment for making frozen pathological specimens should be supplied. For many of the specimens the routine paraffin method is not necessary to make a diagnosis, and as now used it consumes much valuable time.

The Laboratory quarters, although at one time well fitted for the work, are now, on account of the construction of adjoining buildings, not at all suitable for Laboratory purposes. They are poorly lighted, artificial light being needed in the Laboratory at all times in order to carry on the work. They are poorly ventilated, and they are entirely too small. The city has manifested its willingness to furnish better quarters, but so far, apparently, has been unable to secure sufficient room for such purposes, it being the desire of the City Board of Health to continue its offices, in close association with the Laboratory. It seems that the time is not far distant when because of the rapid development of this section of the State, and its remoteness from other Laboratories, it will become incumbent upon the State Board of Health to maintain a State Laboratory Building in this city, as is now the case in the other cities of the State where its Laboratories are located.

I wish to take this opportunity to express to the Central Office my appreciation of the promptness with which my requests for Laboratory supplies have been met. I trust the State Board of Health will see fit to raise the salary of the assistant in this office, who is now receiving but twenty dollars a month from the State. Were it not for the action of

the city in paying part of his small salary, it would be impossible to secure any one for the position. The City Board of Health stenographer is supposed to make out the Laboratory reports, but due to the fact that he is often absent from his office, in the performance of his duties elsewhere, the daily and monthly reports are sometimes held up for considerable time. If the pay for an assistant in this office was made commensurate with the work, an assistant could be secured who could perform the clerical work as well as help with the Laboratory work.

With best wishes for the success of the State Board of Health in carrying out its program for the coming year, and assuring you of my sincere co-operation and support, I am,

Respectfully yours,

HAROLD H. FOX,
Bacteriologist.

MONTHLY DISTRIBUTION OF DISEASES AS DIAGNOSED
BY THE LABORATORY AT MIAMI

Month	1915							Total
	Diphtheria	Gonorrhea	Estivoautumnal	Quartan	Tertian	Species not Determined	Typhoid	
January	1	7	..	..	..	..	4	15
February	6	3	..	..	..	1	5	18
March	5	3	..	..	..	..	2	14
April	..	5	..	..	..	1	2	9
May	..	5	..	..	..	..	1	8
June	..	2	..	..	..	2	1	6
July	..	..	..	..	..	..	..	3
August	..	2	..	..	..	..	2	8
September	5	..	..	..	..	..	1	6
October	..	4	..	1	..	..	1	7
November	5	1	..	..	..	..	1	11
December	3	..	..	..	..	..	5	11
Total	25	32	..	1	..	4	25	116
1916								
January	2	2	..	..	..	..	1	6
February	2	3	..	..	..	..	..	12
March	..	2	..	..	..	..	3	11
April	..	3	..	..	..	..	1	6
May	2	3	..	..	..	..	..	6
June	2	3	..	..	..	..	3	10
July	..	3	..	..	3	2	3	15
August	..	8	..	..	1	..	2	16
September	..	2	..	..	..	2	2	9
October	2	6	..	..	..	1	2	14
November	..	1	..	..	..	..	1	6
December	..	3	..	..	..	..	2	8
Total	10	39	..	..	4	5	20	119
1917								
January	..	4	..	..	1	..	1	12
February	..	7	..	..	1	..	7	19
March	..	10	..	..	..	..	..	16
April	2	8	..	..	..	..	1	15
May	1	12	..	..	..	..	2	22
June	..	11	..	..	..	2	1	19
July	..	11	..	..	..	1	2	16
August	..	8	..	..	..	1	2	17
September	..	10	..	..	1	..	1	16
October	1	13	..	..	..	2	..	19
November	3	11	..	..	1	1	..	18
December	13	10	..	..	2	..	..	27
Total	20	115	..	..	6	7	17	216

REPORT OF H. D. VENTERS
Bacteriologist

TAMPA, FLA., February 9, 1918.

DR. B. L. ARMS,
Bacteriologist,
Jacksonville, Fla.

DEAR DR. ARMS:

Herewith is submitted a tabulated report of the specimens examined in the Tampa Laboratory for the year 1917:

The increase of specimens over those examined during the year preceding is six hundred and seventy-seven. There is a very decided increase in the total number of Wassermann tests made. This was naturally expected since physicians throughout this section of the State were not all informed concerning the action of the State Board of Health in February, 1916, placing the Wassermann test among the routine examinations. Increases in the total number of positive specimens are noticeable in Hookworm, Malaria, Typhoid and Tuberculosis examinations, whereas the total number of examinations for these showed a very marked increase during October, November and December, although it did not assume epidemic form at any time.

Important among a few changes in the routine laboratory work, there is the recording and filing of all the data blanks, so that the report on any specimen may be had at a moment's notice.

During the time that I have been with the Tampa Laboratory the work has been very pleasant indeed. Congenial cooperation with all concerned has been our aim.

Special thanks are due for your ever-ready response to our wants, and to the President of the State Board of Health and the State Health Officer we are grateful for their advice and counsel.

Respectfully submitted,

H. D. VENTERS,
Bacteriologist.

STATEMENT OF SPECIMENS EXAMINED
IN THE TAMPA LABORATORY DURING THE YEAR 1917

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Animal Parasites:														
Hookworm:														
Positive	11	7	5	5	9	11	17	24	19	8	16	9	141	
Negative	63	47	61	78	42	31	56	73	89	72	65	47	724	
Unfit .....	..	..	..	..	..	..	1	..	..	..	..	..	1	
Ameba:														
Positive	1	..	..	..	..	..	..	1	..	..	..	..	2	
Negative	13	15	5	12	5	4	..	1	1	1	..	1	58	
Unfit .....	..	..	..	1	..	..	..	..	..	..	..	..	1	
Ascariis	5	2	8	2	4	6	3	7	12	4	7	2	62	
Lambliæ:														
Int.	1	..	..	..	..	1	..	..	..	..	..	..	2	
Oxyuris	1	..	..	..	..	1	..	..	..	..	..	..	2	
Tapeworm .....	..	..	..	2	..	..	3	2	..	..	..	..	7	
Trichiuris	1	..	7	4	3	9	..	10	7	5	7	3	56	1,056
Diphtheria:														
Cultures:														
Pos. (Diagnosis)...	11	5	4	4	..	3	3	16	5	33	34	35	153	
Pos. (Releases)...	12	2	2	1	..	2	12	16	11	38	56	33	185	
Negative	75	53	60	53	28	26	31	43	46	132	198	158	903	
Doubtful	6	3	4	6	2	1	..	1	..	..	..	2	25	
Swabs:														
Positive	1	1	..	..	..	..	..	1	..	4	2	1	10	
Negative	14	3	1	3	2	1	1	7	3	7	14	18	74	1,357
Doubtful	4	..	..	1	..	..	..	..	..	1	1	..	7	
Gonorrhea:														
Positive	11	15	5	5	2	6	19	7	12	8	11	14	115	
Negative	25	21	27	35	24	25	22	26	30	22	14	14	285	
Doubtful	2	6	3	5	1	5	..	..	1	..	..	..	23	423
Malaria:														
Positive	3	..	..	1	3	3	10	11	15	7	9	4	66	
Negative	124	100	140	124	162	128	133	144	128	119	91	79	1,472	
Unsatisfactory	4	1	4	2	3	..	1	1	1	1	1	1	20	1,558

STATEMENT OF SPECIMENS EXAMINED—Continued
IN THE TAMPA LABORATORY DURING THE YEAR 1917

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Pathological:														
Malignant .....	..	1	2	4	1	1	4	..	..	..	..	..	13	
Non-Malignant ..	1	7	6	7	13	3	3	..	..	..	..	..	40	
Unfit .....	..	..	..	1	..	2	..	..	..	..	..	..	3	56
Rabies: Dogs:														
Positive	1	..	1	..	..	..	..	..	..	..	..	..	2	
Negative	1	..	..	..	..	1	1	..	1	..	..	..	4	
Doubtful	1	..	..	1	..	1	..	..	..	..	..	..	3	
Others:														
Positive .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Negative .....	..	..	..	..	..	..	..	1	..	..	..	..	1	11
Doubtful .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis:														
Positive	16	20	18	18	27	14	17	20	18	16	14	20	218	
Negative	71	45	73	64	63	50	50	53	45	57	53	47	671	
Unfit .....	..	1	1	..	..	1	2	1	1	..	..	..	7	896
Typhoid:														
Positive	11	9	33	26	24	18	24	13	6	3	3	5	175	
Negative	67	71	117	101	108	112	110	114	104	83	61	60	1,108	
Incomplete	5	7	21	8	7	4	5	6	3	1	..	2	69	1,352
Milk Exam.	30	15	7	11	..	3	..	12	8	..	..	..	88	
Blood Counts:														
Differential	3	1	1	1	..	3	..	..	..	..	..	..	9	
Plain .....	..	..	..	2	..	3	..	..	..	..	..	..	5	14
Leprosy:														
Positive .....	..	..	1	..	..	1	..	1	..	..	..	..	3	4
Negative .....	..	..	..	..	..	..	..	..	..	..	..	..	1	
Ophthalmia:														
Positive .....	..	..	1	..	..	..	..	1	..	1	..	1	4	
Negative .....	..	..	1	..	..	..	..	..	..	..	..	3	5	
Urine Exam.	5	19	11	21	7	13	1	..	3	2	1	3	86	

STATEMENT OF SPECIMENS EXAMINED—Continued
IN THE TAMPA LABORATORY DURING THE YEAR 1917

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Pus Cult.	4	..	2	5	..	6	..	..	3	1	..	..	17	48
Dys. Bacilli, Shiga, etc.	..	..	13	31	..	..	..	..	..	..	..	..	48	..
Paratyphoid A and B:	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A—Negative	2	..	63	137	60	7	9	13	4	4	3	5	307	..
Positive .....	..	..	..	..	..	..	1	..	..	..	..	..	1	..
Incomplete .....	..	..	1	..	..	..	..	..	..	..	..	..	1	..
B—Negative	2	..	45	103	47	6	7	10	4	3	3	4	234	..
Positive .....	..	..	6	9	13	1	3	1	..	1	..	1	19	..
Incomplete .....	..	..	12	24	..	..	..	..	..	..	..	..	52	614
Arthritic Fluid.....	..	1	..	..	..	2	..	..	..	..	..	..	1	..
Ocalt Blood .....	..	1	..	2	..	..	..	..	..	..	..	..	1	..
Streptococcus .....	..	1	..	1	..	..	..	..	..	..	..	..	2	..
Spermatozoa .....	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Seminal Fluid .....	..	..	1	..	..	..	..	..	1	..	..	..	2	..
Blood Cultures.....	..	..	..	..	1	..	..	..	..	..	..	..	3	..
Actinomycosis Cult..	..	..	..	..	3	..	..	..	..	..	..	..	1	..
Spinal Fluid	1	..	..	..	..	2	..	..	..	..	..	..	2	..
Gas Bacillus .....	..	..	..	..	..	1	..	..	..	..	..	..	1	..
Myasis. ....	..	..	..	..	..	2	..	..	..	..	..	..	5	..
Globulin and Cell Ct..	..	..	4	..	..	..	..	..	..	..	..	..	1	..
Spirochetes	1	..	..	..	..	..	..	..	..	..	..	..	5	..
Staphylococcus .....	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Miscellaneous	6	..	..	..	..	..	14	8	..	..	..	..	28	..
Wassermann:	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Positive	23	18	37	33	26	22	17	41	34	46	73	55	425	..
Negative	77	89	103	79	89	75	60	74	67	61	83	70	927	..
Anticomplementary	2	3	9	10	9	7	10	8	8	4	6	1	77	..
Doubtful .....	..	4	5	6	7	5	..	..	..	3	3	..	83	..
Unsatisfactory	1	1	3	..	2	1	..	4	2	..	1	..	18	1,480
Total.....	719	595	934	1,051	797	628	652	772	694	748	833	701	9,124	..

DISTRIBUTION OF DISEASES AS DIAGNOSED BY THE LABORATORY FOR THE YEAR OF 1917

Malaria

Town	Diphtheria	Gonorrhea	Estivoau-tumal	Quartan	Tertian	Species not Determined	Typhoid	Tuberculosis	Uncinaria	Trichinuris and Ascaris	Other Intes ¹ Parasites	Wasser-manns	Rabies	Miscell.	Total
Tampa	84	95	4	..	11	26	79	169	81	82	3	382	1	6	1,023
West Tampa.....	3	..	..	..	..	..	7	3	3	33	1	..	..	..	43
Wauchula .....	..	2	..	..	..	1	2	2	2	..	..	1	..	..	12
Ft. Myers .....	..	3	..	..	..	..	2	1	..	..	..	2	..	..	8
Arcadia	1	..	..	..	..	..	1	2	4	..	1	..	..	..	13
St. Petersburg ..	5	..	..	..	3	6	7	1	1	..	1	7	..	..	22
Avon Park	2	3	..	..	..	..	8	1	1	..	1	14	..	..	12
Plant City.....	..	..	..	..	..	..	10	7	7	..	..	..	..	..	44
Tarpon Springs..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	4
Port Tampa.....	2	1	..	..	2	..	1	..	9	1	..	1	1	..	21
Brooksville	5	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Parrish .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10
Largo	3	..	..	..	..	1	1	1	6	..	..	..	..	..	16
Bowling Green...	2	..	..	..	..	..	11	1	..	..	1	..	..	..	7
Manatee	1	..	..	..	..	..	2	1	3	..	..	..	..	..	7
Dade City.....	4	1	..	..	..	..	1	1	..	..	1	..	..	..	8
Wimauma .....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	15
Bradentown	4	..	..	..	..	..	2	2	7	..	..	2	..	..	15
Winter Haven...	2	3	..	..	..	1	2	2	1	2	2	3	..	..	33
Clearwater	11	2	..	..	..	4	6	8	3	..	1	6	..	..	28
Lakeland	6	1	..	..	..	..	4	7	4	..	..	1	..	..	3
Sarasota .....	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2
Punta Gorda.....	..	..	..	..	..	..	3	..	..	..	..	..	..	..	1
Frost Proof.....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Moore Haven....	1	..	..	..	..	..	15	..	..	..	3	..	..	..	18

DISTRIBUTION OF DISEASES AS DIAGNOSED BY THE LABORATORY FOR THE YEAR OF 1917

Town	Malaria						Typhoid	Tuberculosis	Uncinaria	Trichinuris and Ascaris	Other Intes ¹	Wasser- manns	Rabies	Miscell.	Total
	Diphtheria	Gonorrhea	Estivoau- tumal	Quartan	Tertian	Species not Determined									
Citrus Center....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Odessa .....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	4
Palmetto .....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	4
Kathleen .....	..	..	..	..	..	2	1	..	..	..	..	..	..	..	3
Auburndale .....	..	..	..	..	..	..	1	..	..	..	..	1	..	..	1
Mulberry	2	..	..	..	..	..	1	..	..	..	..	..	..	..	3
Haines City .....	..	..	..	..	..	1	2	..	..	..	..	1	..	..	6
Ft. Meade.....	1	..	1	..	..	..	2	..	..	..	..	1	..	..	1
Ft. Dade.....	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2
Mayo .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Dunedin .....	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1
Zolfo .....	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2
Zephyrhills .....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2
Bushnell	1	..	..	..	..	..	..	..	2	..	..	..	..	..	3
Webster .....	..	..	..	..	1	..	..	..	..	..	..	..	..	..	4
Brewster .....	..	..	2	..	..	..	..	..	..	..	..	..	..	..	4
Safety Harbor... 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
San Antonio.....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Wildwood .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
Center Hill.....	8	1	..	..	..	..	..	..	..	..	..	1	..	..	1
Jacksonville .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Bartow .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	185
Release Cultures.	185	..	..	..	..	..	..	..	..	..	..	..	..	..	185
Total.....	398	115	7	..	17	42	175	218	141	118	13	425	2	6	1,617

1915
Malaria

Month	Diphtheria	Gonorrhea	Estivoau- tumnal	Quartan	Tertian	Species not Determined	Typhoid	Tuberculosis	Uncinaria	Total
January	2	7	..	..	..	..	4	4	5	22
February	6	3	..	..	..	1	7	4	4	25
March	5	4	..	..	..	..	5	4	..	18
April	2	5	..	..	..	1	3	2	..	13
May .....	..	5	..	..	..	..	4	2	2	13
June .....	..	2	..	..	..	2	1	1	3	9
July .....	..	..	..	..	..	..	1	4	..	5
August .....	..	2	1	..	..	..	2	6	6	17
September ...	4	..	..	..	..	..	1	..	..	5
October .....	..	4	..	1	..	..	1	1	4	11
November	17	1	..	..	..	..	1	3	2	24
December	4	..	..	..	..	..	6	5	2	17
Total.....	40	33	1	1	..	4	36	35	28	178
1916										
January	2	2	..	..	..	..	1	1	1	7
February	2	3	..	..	..	..	1	6	2	14
March .....	..	2	..	..	..	..	4	4	2	12
April	2	3	..	..	..	..	3	3	..	11
May	2	3	..	..	..	..	1	1	..	7
June	2	3	..	..	..	..	5	2	1	13
July .....	..	3	..	..	3	2	5	3	1	17
August .....	..	8	..	..	1	0	3	2	3	17
September ...	5	2	..	..	..	2	2	4	1	16
October	7	5	..	..	..	1	2	4	1	20
November ...	3	1	..	..	..	..	3	4	..	14
December ....	..	3	..	..	..	1	2	4	1	11
Total.....	25	38	..	..	4	6	32	38	13	156
1917										
January .....	..	5	..	..	2	..	1	6	1	15
February	2	8	..	..	1	..	8	4	4	27
March .....	..	12	..	..	..	..	..	6	2	20
April	2	10	..	..	..	..	6	4	5	27
May	1	12	..	..	..	..	2	8	2	25
June .....	..	15	..	..	..	2	3	9	1	30
July .....	..	12	..	..	..	1	3	3	..	19
August	2	8	..	..	..	1	2	7	3	23
September ...	..	12	..	..	1	..	1	3	1	18
October	3	14	..	..	..	3	..	5	..	25
November ...	5	11	..	..	1	1	..	3	5	26
December	13	11	..	..	2	..	1	6	4	37
Total.....	28	130	..	..	7	8	27	64	28	293

REPORT OF THE BUREAU OF VITAL STATISTICS

By Stewart G. Thompson, D.P.H., Statistician

August 9, 1918.

DR. W. H. Cox,

State Health Officer.

DEAR DOCTOR:

As requested, I herewith submit a partial report of the Bureau of Vital Statistics for the year 1917:

The writer took charge of the Bureau of Vital Statistics April 13, 1918, and since that time has endeavored to make up the 1917 tables as well as get the 1918 work outlined. A complete report of the activities of the Bureau of Vital Statistics together with statistical tables for 1917 will appear later in a supplement. The following tables are submitted for your consideration:

TABLE No. 1

SHOWING THE NUMBER OF DEATHS AND DEATH RATE BY COLOR FOR THE STATE, 1917.

	Estimated Population	Number of Deaths	Rate per 1000 Population
Total	988,461	11,992	12.2
White	600,490	6,881	11.45
Negro	387,971	5,111	13.2

TABLE No. 2

SHOWING THE NUMBER OF BIRTHS AND RATE BY COLOR FOR THE STATE, 1917.

	Estimated Population	Number of Births	Rate per 1000 Population
Total	988,461	17,921	18.1
White	600,490	12,701	21.1
Negro	387,971	5,220	13.4

TABLE No. 3

SHOWING THE NUMBER OF INFANT DEATHS UNDER ONE YEAR AND INFANT MORTALITY RATE PER 1,000 BIRTHS BY COLOR FOR THE STATE, 1917.

	Total Births Received	Deaths of Infants under One Year	Infant Mortal- ity Rate
Total	17,921	1,897	106
White	12,701	1,087	86
Negro	5,220	810	155

TABLE No. 4
SHOWING THE NUMBER OF BIRTHS AND DEATHS BY COLOR BY COUNTIES, 1917.

COUNTIES	BIRTHS			DEATHS		
	Total	White	Negro	Total	White	Negro
State	17,921	12,701	5,220	11,992	6,881	5,111
Alachua	479	282	197	382	156	226
Baker	172	146	26	45	30	15
Bay	224	190	34	144	99	45
Bradford	338	272	66	146	107	39
Brevard	140	105	35	89	60	29
Broward	102	68	34	71	42	29
Calhoun	190	159	31	53	39	14
Citrus	93	62	31	41	26	15
Clay	99	72	27	81	48	33
Columbia	154	113	41	112	53	59
Dade	821	459	362	473	269	206
DeSoto	458	422	36	217	175	42
Duval	1,974	1,235	739	1,892	832	1,060
Escambia	878	652	226	701	358	343
Franklin	105	72	33	52	21	31
Gadsden	362	166	196	428	215	213
Hamilton	179	111	68	94	53	41
Hernando	86	65	21	37	19	18
Hillsborough	2,049	1,782	267	1,154	808	346
Holmes	324	309	15	137	120	17
Jackson	460	310	150	172	99	73
Jefferson	493	117	376	239	57	182
Lafayette	179	167	12	67	57	10
Lake	187	133	54	138	100	38
Lee	221	198	23	96	77	19
Leon	343	91	252	179	41	138
Levy	149	111	38	96	50	46
Liberty	103	70	33	49	25	24
Madison	356	193	163	210	81	129
Manatee	328	263	65	176	115	61
Marion	458	210	248	395	153	242
Monroe	399	307	92	290	208	82
Nassau	186	112	74	130	55	75
Okaloosa	200	166	34	82	58	24
Orange	261	191	70	265	178	87
Osceola	141	124	17	121	105	16
Palm Beach	204	154	50	187	125	62
Pasco	116	94	22	82	73	9
Pinellas	342	273	69	304	236	68
Polk	635	532	103	380	273	107
Putnam	263	162	101	224	109	115
St. Johns	222	154	68	237	154	83
St. Lucie	176	146	30	94	67	27
Santa Rosa	292	220	72	167	103	64
Seminole	192	99	93	130	53	77
Sumter	171	141	30	86	58	28
Suwannee	407	301	106	289	163	126
Taylor	147	126	21	82	55	27
Volusia	357	249	108	340	206	134
Wakulla	163	99	64	70	41	29
Walton	311	258	53	159	109	50
Washington	232	188	44	107	69	38

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